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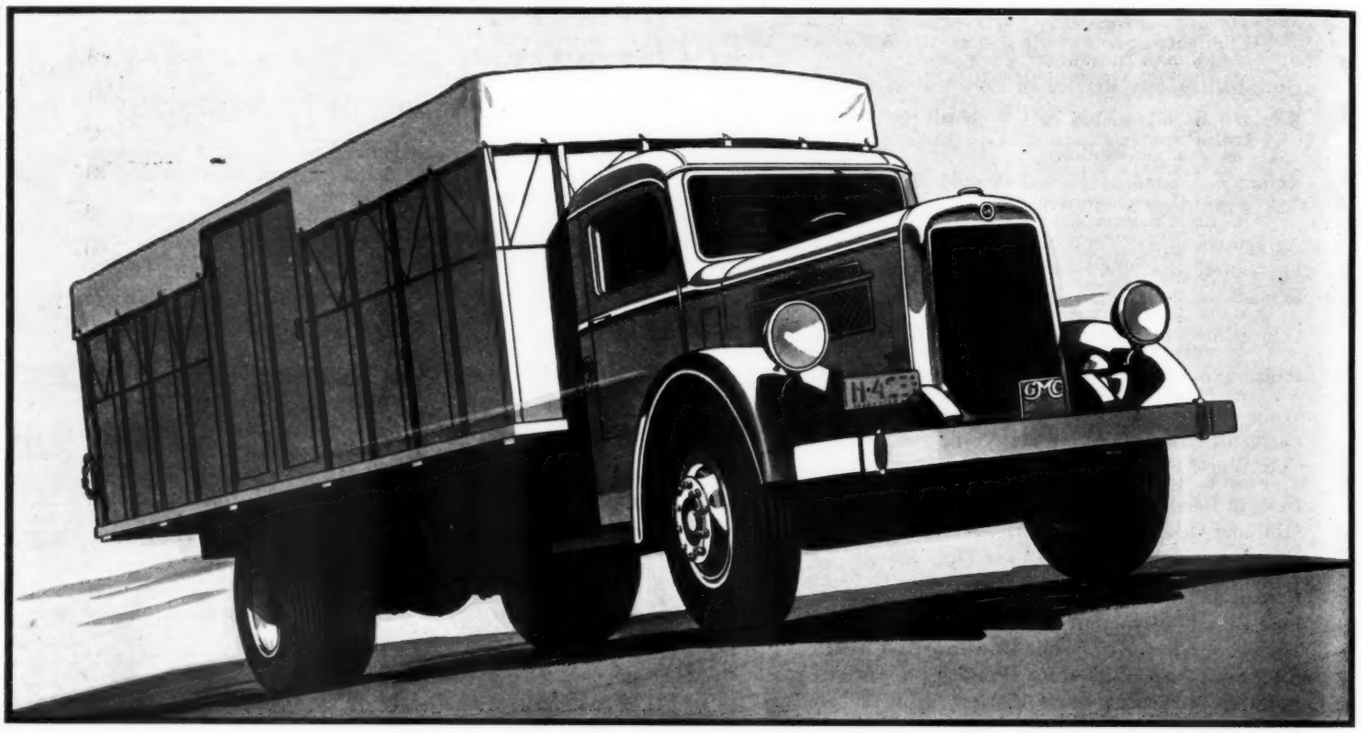

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Markets Stronger on Belief Overproduction Will Be Eliminated Soon by Producers and Refiners

By ANDREW M. ROWLEY

NOTHING more was needed to show the real effect and benefit of curtailment of production of both crude oil and refined products than the resultant strengthening of all markets early this week due to the belief a more strict enforcement of proration regulations was being inaugurated in East Texas and that refiners would be guided by a plan to control refinery operations and withdrawals from stocks. Following the establishment of better quotations for refined products rumors were being circulated in the Mid-Continent area of impending crude oil price increases.

While the world's record for deep drilling was broken during the past week in a test in the South Belridge Field in Kern County, California, this was of more importance as showing the trend in drilling operations than anything else. The deep drilling operations on the Gulf Coast, detailed in this issue, emphasize still further the fact many companies are expending large sums of money and exerting every effort to build up future reserves of crude oil. Consumption during the first two months of this year has shown a material gain over the similar period of 1933.

These facts, considered in the light of the knowledge the two main flush producing fields of the country—East Texas and Oklahoma City—are definitely on the decline and that no additional producing areas of importance have been discovered despite the increase in field activity, all serve to strengthen the crude oil market. It is felt a plan to control refinery operations, which probably will be announced this week, will eliminate or minimize many of the evils which have beset the refined oil market with a resultant strengthening of refined oil prices.

Weakness in the refinery market has been reflected on the crude oil market to such an extent that not more than two weeks ago there was some talk that crude oil prices would have to be reduced. Such talk, naturally, emanated from refiners who were losing money on sales of refined products. The real solution of the problem is to get refined oil prices up to a level which will permit a reasonable profit. Just because gasoline prices are low is no reason why crude oil prices should be low also. When the refiners get their house in order, better prices for them will follow naturally.

Matters are expected to move swiftly in the petroleum industry during the next few weeks. If the refinery control plan strengthens the market, as it is expected it will, the oil business will be in a position to begin the main consuming season from a point from which it can make a reasonable profit on its operations—both in the field and in refineries.

Crude Oil Production in the United States

Estimated daily average production for the week ending April 7, and a comparison with previous week and one year ago, follows:

	Apr. 7	Mar. 31	Apr. 8, 1933
Oklahoma—			
Oklahoma City	166,020	146,940	82,835
Seminole-St. Louis	99,735	98,080	106,720
Remainder of State	194,750	216,455	197,385
Total Oklahoma	460,505	461,475	386,940
East Texas—			
Lathrop	222,380	205,640	174,715
Kilgore	161,635	149,465	127,245
Joiner	144,205	133,350	132,450
Total East Texas	528,220	488,455	434,410
West Texas	132,315	131,613	162,645
North Central Texas	89,457	89,405	73,261
Texas Panhandle	54,095	56,520	45,407
East Central Texas	44,162	43,795	58,810
Gulf Coast—Texas	162,545	160,413	149,525
Southwest Texas	49,558	48,519	51,609
Total State of Texas	1,060,352	1,018,720	975,667
Kansas	123,710	125,475	120,985
North Louisiana	26,830	27,615	30,730
Gulf Coast—Louisiana	46,415	45,792	40,835
Arkansas	30,730	31,040	30,315
Eastern (except Michigan)	98,600	98,500	92,550
Michigan	28,060	27,500	14,450
Rocky Mountain area	82,780	82,070	75,430
California—			
Santa Fe Springs	42,250	40,250	53,500
Long Beach	61,500	60,500	68,000
Playa Del Rey	9,250	8,500	11,750
Elwood	10,250	12,450	13,000
Kettleman Hills	49,750	52,750	57,250
Remainder of State	297,000	288,300	259,500
Total California	470,000	462,750	463,000
Total United States	2,427,982	2,380,937	2,230,902

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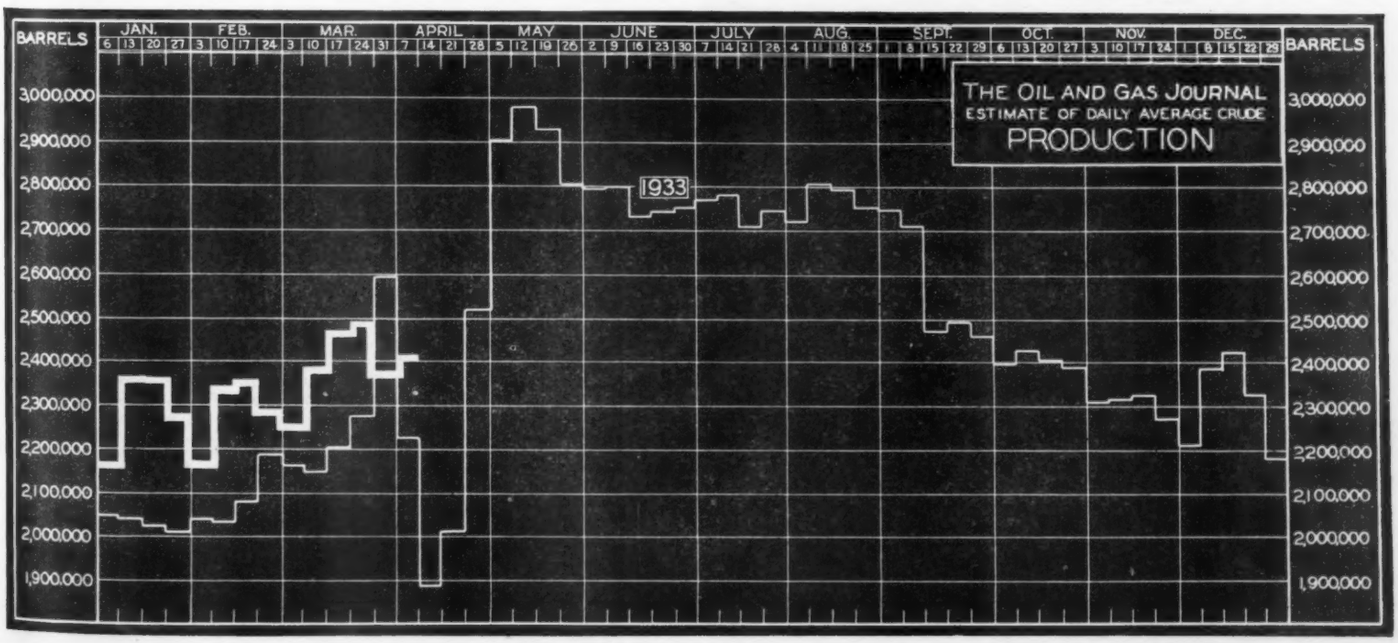


Refiners Told to Co-operate to Work Out Plans for Control or Be Dominated by Government

By W. T. ZIEGENHAIN

"We must co-operate to the fullest measure or we face Federal control" could have been chosen as the slogan of the members of the Western Petroleum Refiners Association while they attended their twenty-second annual convention April 5 and 6 at Excelsior Springs, Mo. Each of the four addresses made before the general meeting stressed the apparent lack of planning and co-ordination of refinery operations as the basis for the demoralized spot market and called for the fullest support of plans that will be formulated and presented to a meeting to be held in Washington, April 13 with refinery representatives from other areas in hopes that refinery control legislation will be withheld from presentation in this session of the congress. Discussion of the proposed legislation was based upon suggestions of its nature outlined in the paper by Fayette B. Dow, counsel for the association, remarks made by W. R. Boyd, Jr., executive vice president of the American Petroleum Institute, and comments made by B. L. Majewski, member of the Planning and Co-ordination Committee and active in working out the marketing section of the oil code. Mr. Dow's paper appears on page 24 of this issue. Copies of similar bills are believed to be in the hands of a member of the House and a member of the Senate and they will be introduced in the respective houses simultaneously. Their reading is likely to follow a message by the President in which he may outline the need for some such legislation in order to save the oil industry from breaking down the scheme of general control being worked out for all industry. Apparently the administration looks upon the oil industry as its protege to a greater extent than any one of the other major industries into which Federal control has been injected in one form or another. That the Government in finding the oil industry willing to be shaped almost at will drew the comments of Howard Bennette, president of the association, when he said: "It is a particular condemnation of the industry that it failed to muster sufficient unselfish co-operative ability to write a satisfactory code for itself, but was compelled to look to Washington for that action."

If the proposed legislation is introduced as believed likely within the next 10 days unless some definite steps are taken to avert it, it is understood its favorable passage will place the operation of the entire oil business upon a public utility basis. Administration of the control will be through a commission with the country divided in much the same manner as the administration of the railroads through the Interstate Commerce Commission but with the exception that the board will have greater powers than the commission and will be able to act quickly in order to be effective under the ever-changing conditions in the oil business.

Can Be Averted

Hoping that Federal control of this kind may be averted by the fullest co-operation of refiners throughout the country, Howard Bennette sought to gain the unanimous support of the members of W.P.R.A. by citing the accomplishments of the code to date, the weaknesses in current practices that must be remedied and the means by which better prices for refinery products may be reached. He stated:

"There is nothing new in basic conditions today, but methods of securing the same results have been altered by this new legislation. . . . Undoubtedly much of the necessity for emergency legislation of the character of the act rests with the archaic nature of our laws and their failure to furnish a degree of elasticity sufficient to keep pace with rapidly changing economic conditions. . . . The only solution to our problems is profit. . . . If the industry fails to accept the pleading of Government to co-operate under a code and suspension of laws which previously prohibited such practice, the coming months will witness the elimination of many plants and the passing of additional legislation which will vest the power of absolute control with Government. Furthermore, should such control materialize, it will probably be for no experimental period but a permanent control of refining properties. Personally, I am opposed to this absolute control by Government through additional legislation. Do not fail to bear in mind that the eventual use of plant output deals with such ultimate essentials as light, heat, power and lubrication. . . . Petroleum products are so closely allied with public necessity that demand will be supplied; however, if individual control is to continue, the financial ability to carry on must be maintained and the industry must find ways and means of doing so. . . . Control of refinery operations, both individually and in groups, must be based on output. The theory has been advanced that stock or inventory control can be applied; however, an individual plant or a group of plants may grossly overproduce the volume of a profitable market, with no change in stocks, by the simple expedient of forced sales at reduced prices. The importance of stocks is overestimated. . . . For years it was the excuse of the industry that legal restrictions were the only bars to their prosperity. Now that these bars have been removed, it remains to be seen whether the national finger will point with pride or scorn, or whether Government is forced to accept the fact that despite its vaunted claims, and the hope that oil would prove a leader in business recovery, its properties must be taken over by Government under the theory that the industry is incompetent to conduct its own affairs and a menace to national prosperity."

Following closely to the discussion of the proposed legislation, B. L. Majewski introduced a motion which carried to the effect that the association recommend a rewriting and simplifying of the marketing section of the code. Several refiners expressed the belief that too much emphasis was being placed upon the marketing section of the code and not enough upon the refining section, but nothing of a definite nature resulted in the meeting.

Digressing from the weighty discussion prompted by the threat of Federal control, those present heard an unusually interesting talk by W. L. Harding, a former governor of Iowa, on the subject of road oil and asphalt. Mr. Harding has been a strong advocate of the use of petroleum materials on secondary road systems and through the use of exhibits showed how the present form of oil company newspaper advertising was simply causing companies to exchange gallonage, whereas advertising that would promote the use of road oils and asphalts in farm communities would create gallonage. He left no doubt in the minds of those responsible for the advertising copy that a small portion of the total space could be profitably devoted to promoting road oil and asphalt sales, which in turn would create new gasoline sales. The technical meetings were featured by papers of both a timely and practical nature. S. S. Smith, of the Shell Petroleum Association, covered the plight of natural gasoline in excellent form and showed wherein the methods adhered to in the sale of natural gasoline had a direct influence upon the refinery gasoline market. As a result of the reading of the paper, P. M. Miskell, manager of the refining division of the Empire Oil & Refining Co., moved that a committee be appointed by the W.P.R.A. to co-operate with a committee of the Natural Gasoline Association of America to study and report on the number of cars of excess natural gasoline which would need to be absorbed by refiners in the Mid-Continent to permit a profitable level of both natural and refinery gasoline prices. At first it was suggested that from 20 to 25 cars of 26-70 natural gasoline purchased every day without resistance would keep the spot market free of distress material but some were of the opinion that the market would require larger purchases.

The report of the tractor fuel committee given by J. A. Sartori of the Producers & Refiners Corp. suggested the establishing of certain specifications, including a specified distillation range which if adopted by all states as a basis for levying motor fuel taxes would simplify the matter of tax exemptions and would eliminate the passing of so-called tractor fuels into the motor fuel market tax free. A motion to submit the proposed specifications to members and nonmembers of the association for their consideration was introduced but after further discussion it was decided by a majority vote to adopt the following as the standard for members of the association.

TRACTOR FUEL MINIMUM SPECIFICATIONS FOR MOTOR FUEL TAX REFUND PURPOSES

Flash	110° F.
10% distilling (min.)	347° F.
25% distilling (min.)	392° F.
95% distilling (min.)	465° F.
Color	16 or darker

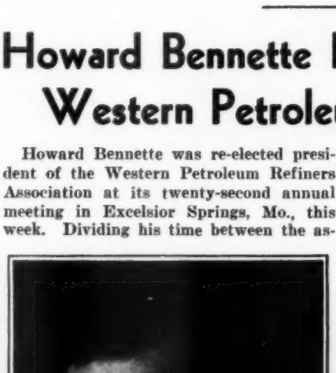
Papers delivered before the manufacturing group were of an exceptional interest because they were fully illustrated with projected pictures. M. B. Cooke of the Alco Products, Inc., summarized the engineering developments that have taken place in refinery equipment in the past few years and covered every phase of plant operation. The paper was prepared by H. R. Swanson, vice president, and Mr. Cooke of Alco.

Latest developments in metaling was described by H. R. Leland of the General Metalizing Co. and his pictures of work done proved exceptionally interesting.

In memory of Pat Malloy, president of the association in 1919 to 1920 the members passed a resolution stating that Pat Malloy's death January 31, 1934, deprived them of the advice of a splendid and sound counsellor and provision was made for entering the resolution upon the records of the association.

Howard Bennette Re-elected President Western Petroleum Refiners Assn.

Howard Bennette was re-elected president of the Western Petroleum Refiners Association at its twenty-second annual meeting in Excelsior Springs, Mo., this week. Dividing his time between the association's offices in Tulsa and working in Washington as a member of the Planning and Co-ordination Committee, the past year was filled with many new duties for him. Assisted by A. V. Bourque, secretary of the association, Mr. Bennette has been exceptionally active in formulating and placing upon an operating basis some of the provisions of the oil code, the marketing agreement and the pooling agreement. The coming year promises to be filled with a continuation of these efforts on the part of the association and Mr. Bennette was chosen by a unanimous vote to head this work for another year. As vice presidents of the association the following were chosen: C. L. Henderson, Vickers Petroleum Co., Wichita, Kans.; T. H. Barton, Lion Oil Refining Co., El Dorado, Ark., and Roy B. Jones, Panhandle Refining Co., Wichita Falls, Texas.



HOWARD BENNETTE

Included in the list of directors chosen are T. A. Helling, Eldorado Refining Co., Eldorado, Kans.; A. Fraser, Shell Petroleum Corp., St. Louis; A. E. Landsittle, Globe Refining Co., Wichita; C. M. Boggs, Kanotex Refining Co., Arkansas City; C. B. Watson, Pure Oil Co., Chicago; D. P. Hamilton, Root Refining Co., Shreveport; E. S. Karstedt, Continental Oil Co., Ponca City; H. A. Trower, Phillips Petroleum Co., Bartlesville; L. B. Simmons, Rock Island Refining Co., Duncan; Rex H. Winget, Cushing Refining and Gasoline Co., Cushing; A. L. Derby, Derby Oil Co., Wichita; R. R. Irwin, White Eagle Oil Corp., Kansas City; Sheldon Clark, Sinclair Refining Co., Chicago; W. G. Skelly, Skelly Oil Co., Tulsa; L. H. Prichard, Anderson Prichard Oil Corp., Oklahoma City; L. B. McCammon, Marathon Oil Co., Tulsa; R. W. McDowell, Mid-Continent Petroleum Corp., Tulsa; B. L. Majewski, Deep Rock Oil Corp., Chicago; B. H. Gray, Spartan Oil Corp., Shreveport, and D. C. Gray, Waggoner Refining Co., Electra; D. W. Harris, Louisiana Oil Refining Corp., Shreveport.

Refinery Control Proposal Would Make Pooling Agreement Operative as Part of Oil Code

By HUGH D. MALLON
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Apr. 10.—Under a plan for refinery control advanced by the Petroleum Administrative Board for consideration by the industry the so-called pooling agreement would be put into effect as a part of the petroleum code. This provision is included in the draft of the proposal which was announced by the administrator following the adjournment of the public hearing called to consider the question of controlling refining operations. The hearing was convened on Wednesday, April 4, by the Petroleum Administrative Board to hear proponents of various proposals and recommendations on this subject and was adjourned after less than two hours discussion for one week. This adjournment was necessary according to Nathan R. Margold, who presided "in order to give to those who are very intimately affected by what we do, an opportunity to be heard."

In announcing the proposal Secretary of the Interior Harold L. Ickes, petroleum administrator, stated that the plan is for the consideration of the industry and will be discussed at the hearing before the Petroleum Administrative Board on April 11. He explained that the plan represented a consolidation of various proposals offered by different factions of the industry. Emphasis was placed on the fact that he had neither approved nor disapproved the plan. It is an attempt by the administrator's office to put through a compromise which will be acceptable to a majority of the industry. As drafted the plan would be a complete substitute for the present refining article of the petroleum code.

This proposal was discussed at length by members of the Western Petroleum Refiners Association meeting at Excelsior Springs, Mo., and has also been under discussion at a series of meetings held in New York.

The text of the plan follows:

Article 4—Refining

Section 1. To achieve greater accuracy in balancing production and consumption of gasoline, and to prevent the injurious effect on interstate commerce of an unbalanced accumulation of inventories of motor fuel in any part of the country or of surplus production and consequent distribution of motor fuel in excess of market requirements, a Federal agency, designated by the President, shall divide the country into eight refining districts and shall determine from time to time:

(1) The proper relationship between inventories of motor fuel and sales thereof for each district, and

(2) The production of motor fuel in each district necessary to meet the demand therefor, with due regard to normal seasonal fluctuations in refining operations. The determinations so made shall constitute the operating schedules for the refining industry in each district.

Allocators

Section 2. The Planning and Co-ordination Committee shall appoint for each district, subject to the approval of the President, a district allocator, from nominations made by refiners operating within the district. The regional committees appointed by the Planning and Co-ordination Committee, together with such subcommittees as may be necessary, shall co-operate with the district allocator in making effective the provisions of this article. The Planning and Co-ordination Committee shall appoint for each district subject to the approval of the President, a board of review, which shall adequately be representative of the refining industry and/or other activities of the district allocator. Within the limits of the operating schedules for the refining industry in each district, as determined by the Federal agency pursuant to Section 1 above, the district allocator shall establish for each refinery operating in the district:

(1) The proper relationship between inventories of motor fuel and sales thereof, and/or

(2) The amount of motor fuel to be produced.

Board of Review

In making such allocations the district allocator shall take into consideration relevant features of operating and market conditions under rules and regulations prescribed by the committee, with the approval of the president. The district allocator in conjunction with the board of review also shall make every effort to avoid inequities that may exist in the availability of supplies of crude oil to refiners necessary to maintain either the proper ratio between inventories of motor fuel and sales thereof or the production of motor fuel authorized in the manner set forth above, and shall recommend to the committee such withdrawals from storage (including intercompany transactions) as are necessary to achieve the purposes of this article. No withdrawals from storage by or on behalf of any refiner operating in a single district shall be authorized under the terms of Article 3, Section 2 hereof and/or rules or regulations issued thereunder, unless the application has been referred to the district allocator concerned. Any person may appeal from any recommendation, allocation or decision of the district allocator to the board of review provided for above, and the decision of the said board of review shall be final, subject to the approval of the Planning and Co-ordination Committee and the President.

National Co-ordinator

Section 3. The Planning and Co-ordination Committee shall appoint, subject to the approval of the President, a national co-ordinator of refining operations, in order that the allocations made by district allocators to refineries operating and/or maintaining gasoline inventories in more than one refining district may be adjusted equitably to meet the consolidated requirements of such refiners. The national co-ordinator shall determine the interregional adjustments in district allocations which may be necessary to effectuate the required co-ordination, provided that interregional adjustments shall be made in such manner that the relationship between inventories of motor fuel and sales thereof and/or the production of motor fuel shall conform in the aggregate to the determination made by the Federal agency under Section 1 above and in such manner that in any refining district, an unbalanced accumulation of inventories of motor fuel and the surplus production and consequent distribution of motor fuel in excess of market requirements may be prevented.

The district allocators shall meet with the national co-ordinator at such times and places as may prove necessary to provide the necessary co-ordination between districts and the uniform application in each district to the rules and regulations provided for in Section 2 and other provisions of this article. Each district allocator shall furnish to the national co-ordinator a complete statement of the allocations made to each refinery in the district and shall furnish such regular reports as may be required by the national co-ordinator for the proper performance of his duties. No withdrawals from storage by or on behalf of refiners operating refineries and for maintaining crude oil inventories in more than one refining district shall be authorized under the terms of Article 3, Section 2 hereof and/or rules and regulations issued thereunder unless the application has been referred to the national co-ordinator and by him to the district allocator concerned.

Equalization Committee

Section 4. In order that the provisions of this article may not operate in such manner as to discriminate against small refining enterprises and in order to assist in the orderly liquidation of excessive gasoline inventories, the Planning and Co-ordination Committee shall appoint, with the approval of the President, a committee of five to be known as the gasoline equalization committee. This committee is authorized to purchase from nonintegrated and/or semi-integrated refiners within such limitations and under such rules and regulations as under such rules and regulations as may be approved by the President, such quantities of gasoline as, according to such rules and regulations, constitute surplus production and/or unbalanced accumulation of inventories. The gasoline equalization committee is authorized to appoint a manager, employ such assistants as may be necessary and arrange in an equitable manner for the financing of such gasoline purchases.

To Establish Quotas

Section 5. Upon a determination that an excessive supply of motor fuel or an unbalanced accumulation of inventories of motor fuel exists in any district, which excessive supply and/or excessive accumulation of inventories injuriously affects interstate and foreign commerce and is such that any remedy must incidentally apply in like manner to intrastate commerce, or upon a determination that any refiner knowlingly and wilfully has failed to conduct his refining operations in accordance with the allocations made under the provisions of Section 2 above, the district allocator, with the approval of the Planning and Co-ordination Committee, may establish fair and equitable quotas for motor fuel to be moved from all or any of the refineries or other sources of supply in the district. Such quotas shall be in accord with such rules and regulations as are promulgated by the Planning and Co-ordination Committee under Section 2 above.

Public Hearings

While such quotas are in effect no person shall place in commerce or receive in commerce by sale, exchange, consignment, or otherwise, any motor fuel in excess of the quota prescribed. Before establishing quotas for motor fuel hereunder, the board of review and the district allocator shall jointly hold or cause to be held hearings with respect to the establishment of such quotas and to such other matters as in the opinion of the committee may be proper, after such reasonable public notice as may be prescribed, provided, however, that in any

Agreement Is Reached in New York on Refinery Operations Control Plan

NEW YORK, Apr. 9.—Representatives of major oil companies and refinery associations meeting here today are said to have come to an agreement covering a plan of controlling refinery operations with the view of remedying the present surplus situation in the gasoline market and a permanent plan of maintaining a healthy situation in supply and demand for refinery products. Representatives of the Western Petroleum Refiners Association, the National Petroleum Association and major companies were in attendance at the meeting. Further conferences will be held in Washington on Tuesday with the final agreement to be presented to the oil administration board on Wednesday.

It is understood that the plan agreed on here follows in its main features the revision of the petroleum code presented recently by Secretary of Interior Ickes for consideration by the industry with suggested features which it is hoped will simplify and expedite its application in the present refinery situation, which is conceded to be critical. The plan is in the nature of a compromise between the opposing views of a group of major oil companies and members of the Planning and Co-ordination Committee.

One of the features of the new plan, it is reported, provides for increasing the membership of the Planning and Co-ordination Committee to provide representation for certain major oil companies and independent interests. At present the Standard Oil Co. (New Jersey), Standard of Indiana, Consolidated Oil Corp., Atlantic Refining Co., Sun Oil Co. and Cities Service interests are not represented on the Planning and Co-ordination committee. The plan seeks to keep control within the industry and provides for the continuance of the Planning and Co-ordination Committee.

The plan agreed upon today is said to provide for dividing the oil refining industry into eight districts and giving each district a gasoline quota. Eight allocators would be named, one for each district, who would supervise refinery operations in the respective territories and see to it that regulations were observed by refiners.

Under the plan each refiner would receive the right to produce his pro rata share of total gasoline production and to sell his pro rata share of stocks of gasoline provided he owned any. In this way, in the opinion of the sponsors of the program, the supply would constantly be kept in balance with market demand.

emergency as determined to exist by the committee quotas may be established for a temporary period not to exceed one calendar month without previous notice or hearing, but in such event, the committee in the next subsequent period shall adjust quotas so allocated upon the basis of due notice and hearing hereinabove prescribed, as to prevent any inequitable allocation.

Use of Certificates

To aid the enforcement of this section, the Planning and Co-ordination Committee, upon request therefor being made by the district allocator, may issue and furnish to refiners serially numbered certificates in proper denominations and quantities for the movement of motor fuel from refineries or other designated sources of supply. Such certificates in totals corresponding to the estimated motor fuel movements of the respective refineries, whether in commerce or to storage, for such periods as the committee may fix, shall be delivered and charged to the respective refineries in advance of the periods of their use. After the establishment of such quotas no person shall transport or receive, from any refinery or other designated source of supply any motor fuel, except when such certificates for the corresponding quantity are used and canceled. When shipment is made under the bill of lading or shipping receipt the certificates shall be affixed to such document. In every other case the person making shipment or delivery shall issue to the carrier, purchaser or other original recipient of the goods a true memorandum of the quantity and affix the certificates to the memorandum. Cancellation of certificates shall be made by the carrier, purchaser or other original recipient of the goods. No cancelled or once-used certificate shall be used again, and at the request of the committee or of the district allocator at any time, true reports shall be made by the refiners of the quantity represented by unused certificates on hand.

The committee may make such rules and regulations and require such sworn reports as the committee may deem necessary to accomplish the purpose of this section.

Failure on the part of any person to observe or comply with any provision of this section or any valid order, rule or regulation hereunder shall constitute a violation of the code.

Position of Refineries

At the hearing on April 4 to consider this subject, the position of the small companies was brought out. The picture of a rising market for crude oil and a declining market for motor fuel was shown with the resultant squeeze of the refiner. The point was raised that if an artificial market price for crude oil is maintained through control of production, then, to balance that, there must also be a like control of refinery operations in order to balance the two markets economically. Controlled production, without controlled refinery operations, means death to the refining branch of the industry, it was stated.

Wage Differential Hearing

A formal hearing on wage differentials proposed for employes in the oil industry by the Planning and Co-ordination Committee has been ordered by the administrator, to permit workers to review these recommendations and submit counter-proposals. Wage differentials, when approved, will be retroactive to September 2, 1933. The Petroleum Labor Policy Board has been instructed to conduct the hearings, which are scheduled to commence April 12 at the Interior Department.

The Planning and Co-ordination Committee has proposed differentials for each occupation in the natural gasoline, production, refining and pipe line divisions of the industry. Provision is made in this proposal that insofar as these classifications and differentials affect operations in "stripper" well areas a 15 per cent reduction from the rate obtained by applying the differential shall be made, but in no instance shall the rate be less than the minimum labor rate for the region.

Under the proposal a common laborer is defined as one engaged in occupations requiring neither skill nor experience. A skilled worker is one having a reasonable amount of experience in one or more of the jobs listed in his group or experience in work of a similar nature. Workers engaged in natural gasoline, production, and pipe line activities are divided into five groups in each region except Region 6 comprising the states of California, Nevada, Oregon and Washington. In Region 6 there are nine groups in the production division, eight groups in natural gasoline operations and seven groups in the pipe line section.

For these three divisions differentials between the groups are six cents. That is, Group 1 would be the common labor group with a minimum as set up in the Code. Group 2 would have a differential of 6 cents over this minimum, Group 3, 12 cents, and so on.

Differentials for refinery workers are set up for each occupation in a refinery and these occupations and differentials vary in each region. However, it is claimed that this schedule of wages is approximately the same as the wages now being paid to employes.

The administrator has approved a regulation recommended by the division of investigation of the Interior Department and the Petroleum Administrative Board, which will tighten the enforcement of crude oil production control in Texas and California by requiring reports from ships moving crude oil, or its products, from ports in those two states to other domestic markets.

In announcing the approval the secretary stated: "There have been numerous reports that producers and refiners of oil in Texas and California have been shipping large quantities into other markets threatening to disrupt the program of stabilization. The requiring of reports will show where the oil is from, to whom it is going and the quantity being shipped."

The regulation, known as Regulation 24, provides that the master of every vessel taking on petroleum or petroleum products at any port of the States of Texas and California for carriage in whole or in part to any other port in the United States shall, upon clearance from such port, send by registered mail to the division of investigation of the Interior Department at its office in Tyler, Tex., a report in triplicate, containing the following information: Name of vessel; name of owner of vessel; name of master; port from which report is being made and date of such report; number of barrels of petroleum and of each product of petroleum taken on at this port as cargo and the destination of such cargo; number of barrels of petroleum and of each product of petroleum discharged at this port; number of barrels of petroleum and of each product of petroleum other than that taken on at this port, now held aboard as cargo and (if it is not taken on at any port in Texas) the port of origin of such cargo.

Figuring Proper Oil Production Quotas and Stocks Big Job in Washington

The code for the petroleum industry had been in effect but a very short time when it was realized in Washington there was a vital need for a man not only with a statistical trend of mind who

FRED VAN COVERN

"knew his figures" but who had had practical operating experience in the oil business. Everyone conceded the big job confronting the petroleum administration and the Planning and Co-ordination Committee in efforts to stabilize the industry lay in bringing production and consumer demand into line. Many important questions were involved, such as what constituted demand, and just what production was warranted and equitable from the different producing areas and refinery centers. Other questions were arising constantly involving the matter of unfinished oils, stocks of motor fuel and other refined products, including unfinished oils, and complaints galore began to pour in from individual producers and refiners about their allocations, and from different fields and states asking for higher allowables and asserting their quotas were not equitable and should be increased.

With these problems piling up and needing quick action, a rush call was sent to New York for Fred Van Covern, director of the Division of Statistics and Economics of the American Petroleum Institute. The Institute co-operated by lending Mr. Van Covern to the Planning and Co-ordination Committee and Mr. Van Covern moved to Washington at once. While he is associated with the Planning and Co-ordination Committee and aids in the compilation of figures on crude oil and refined products allowables and quotas and stocks, he co-operates and maintains a close contact with members of the Petroleum Administrative Board and the committee on statistics and economics of the oil industry in Washington, of which he is a member.

Mr. Van Covern was in the New York office of the Carter Oil Co. for three years, starting in 1917. His duties were along the lines of general statistics in addition to work on producing field maps and keeping in touch with foreign and domestic oil conditions. Part of the time he devoted his time exclusively to foreign work. He then was transferred to the producing department of the Standard Oil Co. of New Jersey and was placed in the foreign fields operations department. He was given an opportunity to learn the oil business "from the ground up." This education included his going out with a pick and shovel as a roustabout and lasted for two years. He then was sent to Rumania, where he worked for 15 months, then going to Poland, where he aided in the construction of the first American derrick and helped carry on the first American standard cable tool drilling operations in eastern Poland.

Upon his return to the United States Mr. Van Covern was asked to aid Robert L. Welch, then secretary of the American Petroleum Institute, who needed a man trained along statistical lines with a knowledge of field work and operating conditions. Mr. Van Covern took the position "temporarily" and has been associated with the Institute since that time.

In his work in Washington, Mr. Van Covern is constantly studying trends in business and their effect upon consumption of gasoline and other petroleum products, leading up to the overall requirements of crude oil. He still retains his position as director of the Institute's Division of Statistics and Economics and spends considerable of his free time doing work in connection with that division's activities.

Tulsa Exposition Plans Jobber-Dealer Discussion

The discussion of common problems will be the feature of two joint sessions between dealers and jobbers and refiners at the International Petroleum Exposition and Congress in Tulsa which opens May 12.

W. G. Skelly, exposition president, has sent out over 8,000 invitations to jobbers and dealers in the marketing division of the industry in 13 states and others are to follow. The invitations sent out to date cover North and South Dakota, Kansas, Minnesota, Illinois, Indiana, Wisconsin, Oklahoma, Texas, Missouri, Nebraska, Iowa and Colorado. The two sessions will be held on May 18 and 19.

Mr. Skelly announces a discussion at the first session will "center around problems that are bothering the marketers such as further raising of octane numbers; future of third-grade gasoline; future of 'Q' gasoline; will development of cracking do away with third-grade gasoline? development of Mid-Continent lubs.

"The second session discussion will have for its objective the improvement of relations between refiners and jobbers. The refiner wishes to tell his side to the jobber and dealer and he wishes to learn the jobber's story at first hand. There are many problems in both ends which can be smoothed out a bit if there is a complete understanding between both parties. Subjects at the second session will be: Refiners-jobbers contracts; jobbers' margins; marketing costs by the refiners with their own marketing stations."

Mr. Skelly stresses the importance of the dealers and jobbers seeing the marketing exhibits which will contain displays of all marketable products of petroleum and gas. The scope of petroleum marketing activities has so greatly widened during the past three years that marketers will be amazed at the many new practices, new policies, new equipment and merchandise, all of which will be on parade in one place for eight days where comparisons, exchange of ideas and sales may be made.

Refiners and marketers exhibits will be on display in the Refiners and Marketers Building. Booth space has been completely sold out in this building. Among the large marketing firms to have exhibits are: Sun Oil, Deep Rock, Phillips, Wilcox, Texas, Mid-Continent, Skelly, Marathon and Sinclair-Prairie.

An executive committee appointed to arrange for the refiners and marketers sessions consists of P. M. Miskell, Empire Oil & Refining Co., Tulsa; A. G. McGuire of Milwaukee; Walter Miller, Continental Oil Co., Ponca City; Fred Koontz, Mid-Continent Petroleum Corp., Tulsa, and Mr. Skelly.

FATALLY INJURED

John Anderson, Shreveport, La., district manager for Dowell, Inc., was fatally burned in an explosion and fire that occurred at The Henderson Co.'s No. 1 Ogden, in Section 32-18-14, 4 miles south of El Dorado, Ark., April 9. Mr. Anderson had been called to the well to discuss the problem of treating the formation with acid and preparatory to making decision about this treatment the well was shut in. The pressure built up inside the casing and blew off some of the fittings and Mr. Anderson was in the path of the flame that resulted from this explosion. He died in the hospital about four hours after the accident.

Government Data Point to Remarkable Increase in Demand for Crude and Refinery Products

By C. O. WILLSON

A remarkable increase in the demand for crude oil and refinery products is shown in the reports of the Bureau of Mines for the first two months of this year. The February report, which became available the past week, shows that the trend toward greater demand which was apparent in the January report, continued with even greater increases in some products.

While two months is not a long enough period to base predictions for the entire year, the writer knows of no reason why the figures covering the first 59 days of this year should not be interpreted as pointing to a substantial increase in demand for petroleum products over the remainder of the year when compared with the same period in 1933. The indicated increase in the demand, based on plant shipments, for one or two of the refinery products the first two months is obviously abnormal and will not be continued but this fact does not detract from the basic data which point to an actual increase in requirements on the part of the consumers for petroleum, a reflection of the strong hold that its products have as necessities in households and industries.

The indicated total demand for crude oil the first two months of this year was 147,010,000 bbls., a gain of 12,128,000 bbls. or 9.9 per cent when compared with the same period in 1933. Expressed in barrels daily, the 1934 demand averaged 2,492,000 bbls., a gain of 206,000 bbls. over the 2,286,000 bbls. for the first two months of last year. This shows the importance of a gain of a few per cent in the daily requirements for crude oil from the producing end of the business.

Even the export demand for crude oil increased, the average for January and February being 81,300 bbls. daily which compares with an average of 65,000 bbls. for January and February of last year.

Refinery Products

Among the refinery products as shown in the accompanying table the total demand for all products increased with the exception of petroleum wax. In motor fuels, the indicated domestic demand increased 9.3 per cent the first two months. This increase materialized despite the fact that in the eastern part of the United States weather conditions were exceptionally unfavorable for the use of motor vehicles. Gasoline exports continued to decline as they have for the past three years but the gain in domestic demand far offset this decrease and the total demand (domestic demand plus exports) increased 7.6 per cent over last year.

Largely the same situation obtained in the case of kerosene. The domestic demand showed a phenomenal increase of 21.2 per cent over the first two months of 1933. Exports, which are becoming more and more a minor factor in refinery markets of United States, decreased 13 per cent but the total demand despite this decrease in foreign outlets showed an overall gain of 15 per cent.

The government data on gas oil and fuel oil require careful analyzing to secure accurate comparisons as the basic figures have been changed from time to time in recent months. Based on the available information, there was an increase of 11.2 per cent in the domestic demand for these products with a gain of 16.4 per cent in export movement resulting in an increase of 11.6 per cent in total demand.

Data from other sources substantiate this increase in demand for fuel oils and burning oils. In the case of the overhead oils (kerosene, distillate and gas oil) there was a heavy consumption the first two months of this year by all types of burners. Railroads, public utilities and industries have increased their purchases of the heavier residual oils. The government data show an increase of approximately 800,000 bbls. in the fuel oil purchases of Class A railroads and public utility power plants the first two months of this year.

The government figures give the reason for the strong lubricating oil market so far this year, after a three-year period of declining demand and lower prices. In the face of an advancing market all classes of purchasers have bought heavily both in domestic and foreign markets. The increase in the case of the domestic market was 26.9 per cent and in the export end 41.3 per cent with a gain in total demand of 31.9 per cent. It is certain that this rate of increase will not be maintained but the data available do point to a continued heavy demand through the summer months. The increase in industrial activity has been an important factor in the enlarged demand for lubricating oils at refineries.

The situation in the case of petroleum wax is not so favorable as the other refinery products. The latter part of 1933

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Crude Oil and Refinery Situation Summarized—First Two Months of 1934-1933

Supply and Demand—Crude Oil (Bbls.)

	Total supply	Total demand	Excess Demand	Excess Pct.	Domestic production	Imports	Domestic demand	Exports	Stocks refinable crude Feb. 28
1934, first two months	143,257,000	147,010,000	3,753,000	2.6	137,426,000	5,831,000	142,211,000	4,799,000	351,641,000
1933, first two months	130,227,000	134,882,000	4,655,000	3.5	125,027,000	5,200,000	131,059,000	3,823,000	335,060,000
Increase, 1934	13,030,000	12,128,000			12,399,000	631,000	11,152,000	976,000	16,581,000
Increase, 1934	9.9%	9%			9.9%	12.1%	8.5%	25.5%	4.9%

Supply and Demand—Refinery Products—Motor Fuel (Bbls.)

	Total supply	Total demand	Excess Demand	Excess Pct.	Domestic production	Imports	Domestic demand	Exports	Stocks Feb. 28
1934, first two months	64,063,000	58,431,000	*5,632,000	*9.7	64,062,000	1,000	54,466,000	3,965,000	56,653,000
1933, first two months	59,783,000	54,307,000	*4,976,000	*9.1	59,283,000		49,822,000	4,485,000	55,384,000
Increase, 1934	4,780,000	4,124,000			4,779,000		4,644,000	†520,000	1,269,000
Increase, 1934	8%	7.6%			8%		9.3%	†5%	2.3%
Kerosene									
1934, first two months	8,468,000	9,726,000	1,258,000	15	8,468,000		8,399,000	1,327,000	5,299,000
1933, first two months	8,054,000	8,454,000	400,000	5	8,054,000		6,930,000	1,524,000	4,574,000
Increase, 1934	414,000	1,272,000			414,000		1,469,000	†197,000	725,000
Increase, 1934	5.1%	1.5%			5.1%		21.2%	†13%	15.8%
Gas Oil and Fuel Oil									
1934, first two months	50,798,000	65,716,000	14,918,000	29	50,617,000	181,000	61,932,000	3,784,000	110,967,000
1933, first two months	51,306,000	58,919,000	7,613,000	14.8	49,361,000	1,945,000	55,670,000	3,249,000	124,208,000
Increase, 1934	†508,000	6,797,000			1,256,000	†1,764,000	6,262,000	535,000	13,241,000
Increase, 1934	†1%	11.6%			2.5%	†90%	11.2%	16.4%	10.6%
Lubricating Oil									
1934, first two months	4,063,000	3,973,000	*90,000	*2.5	4,063,000		2,487,000	1,486,000	7,120,000
1933, first two months	3,448,000	3,011,000	*437,000	*14.5	3,448,000		1,960,000	1,051,000	8,812,000
Increase, 1934	615,000	962,000			615,000		527,000	435,000	1,692,000
Increase, 1934	17.8%	31.9%			17.8%		26.9%	41.3%	19.2%
Petroleum Wax (Lbs.)									
1934, first two months	98,272,000	83,314,000	*14,958,000	*17.9	85,680,000	12,592,000	48,036,000	35,278,000	83,791,000
1933, first two months	71,199,000	86,978,000	15,779,000	18.1	64,680,000	6,519,000	46,595,000	40,383,000	147,849,000
Increase, 1934	27,073,000	†3,664,000			21,000,000	6,073,000	1,441,000	†5,105,000	†64,058,000
Increase, 1934	38%	†4.4%			32.4%	93.1%	3.1%	†12.6%	†43.3%

*Excess demand. †Decrease. Note—Total supply equals domestic production plus imports. Total demand equals domestic demand plus exports. Data on demand for refined products are based on refinery shipments.

Crude Oil Runs to Stills and Total All Oils (Bbls.)

	Total crude to stills	Nat. gasoline production	% Gasoline yield from crude oil†	Total supply all oils*	Total demand all oils*	Stocks all oils Feb. 28
1934, first two months	137,982,000	5,807,000	45.6	150,848,000	143,404,000	595,876,000
1933, first two months	127,135,000	5,419,000	45.7	138,619,000	127,122,000	584,982,000
Increase, 1934	10,847,000	388,000		12,229,000	16,282,000	10,894,000
Increase, 1934	8.5%	7.1%		8.9%	12.8%	1.8%

*Total all oils includes crude oil, refined products, natural gasoline and benzol. †Refinery yield including natural gasoline blended at refineries.

Many Complexities Involved in Control of Public Utility Scope for the Oil Industry, Says Dow

By FAYETTE B. DOW*

The first six months of 1933 was a disastrous period for the oil industry in all of its operations. The last six months, while not satisfactory, showed a notable improvement. Since the petroleum code was approved in the late summer, numerous meetings have been held for discussion, interpretation and enforcement of its existing provisions. New agreements have been drawn up which for one reason or another have not been put into operation. We appear to be at a point where further steps toward a more effective control are indicated. What should they be?

Self regulation of industry is a cardinal principle of the Recovery Act. The criticism has been expressed in Washington and elsewhere that the oil industry has proved itself incapable of self regulation under its code. I do not go that far, although the progress has been admittedly slow. There have been a number of plans which seemed to those who sponsored them to hold out great promise of beneficial results which have not been put into operation. It was apparently necessary to spend some valuable time last fall and winter considering some possibilities that were new to the oil industry prior to the code. One was price fixing. It seemed to me that price fixing, whether you called it a minimum price or cost recovery, was unsound and unworkable. If it were imposed in disregard of fundamental economics the prices would not hold; if the fundamental economics were sound they would make the price. In any case, so it seemed to me at least, you could not avoid the controlling influence of supply and demand. But there were others for whose judgment I have high regard who differed with me and were enthusiastic for price fixing. In any event, as things turned out, price fixing gave way to uniform contracts which fixed margins, and set up an elaborate buying pool. Although these contracts give promise of more orderly marketing, they are still somewhere on the calendar of unfinished business.

Reduce Refining Operations

But while these two efforts were absorbing so much of the industry's attention a program to reduce refining operations in the various Bureau of Mines' districts was getting under way. It was one of the two great fundamentals—that the oil administration's program to control crude oil production—but it was in the back ranks of the marching industry, getting only the attention that was left over, while a far greater interest was centered on the two more resplendent figures—named price fixing and uniform contracts—the industry's perhaps unconscious but certainly naive way of postponing the issue of fundamental economics. Now, at last, the imperative necessity of reducing gasoline manufacture and inventories is in the foreground and is the subject of public hearings before the Petroleum Administrative Board in Washington this week.

What are the next steps in a sound program of control?

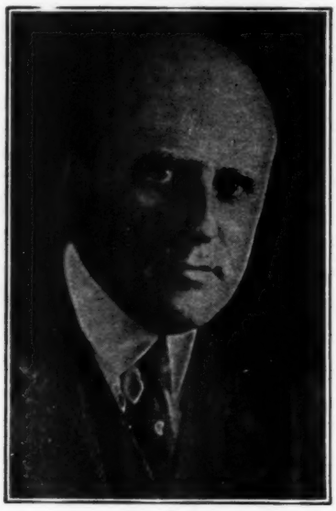
There have been a number of proposals, most of which deal with prospective legislation.

The most drastic proposal is for an act of Congress providing for complete Federal regulation of the oil industry. I do not know the authorship of this plan or, with any degree of certainty, its scope. But the hearsay that comes to me is that the proposal contemplates a public utility status for the oil industry under a board vested with control over production, refining and marketing. The powers of such a board, we are told, would be like those of the Interstate Commerce Commission over railroads except that the authority would be even more extensive. Ordinarily I would not think of discussing a bill which I have not seen but if its nature and scope have been accurately described the proposal can be discussed in its main outlines.

*Annual meeting of the Western Petroleum Refiners Association, Excelsior Springs, Mo.

Economics of Proposed Act

In these comments I am laying to one side, for the time being, the obvious questions as to the legal validity of such an act, and the unwisdom of inviting controversies both in Congress and the courts. I shall speak only of its economic and practical aspects. My excuse for doing so is, in part, the experience which I have had in the field of similar regulation. For several years I was one of the attorneys for the Interstate Commerce Commission. I participated in many rate cases and assisted the commission in fixing prices for transportation. I know the typical procedure that is involved—the pleadings, the hearings, the testimony and exhibits, the briefs, the proposed reports, the exceptions, the oral arguments, the decisions, the petitions for hearing, the records on rehearing, the rearguments, and the final decisions which, in many instances are not final. I do not want you to think that this experience has lessened my confidence in government regulation in a proper field. On the contrary I have the greatest respect for the service rendered by the Interstate Commerce Commission, for its freedom from political pressure, and for its fundamental desire to deal fairly with all interests. But that experience leads me to believe that regulation of the same general character would be wholly unsuited to the involved and rapidly changing operations of the



FAYETTE B. DOW

oil industry and would make me opposed to any government regulation not unquestionably required by the public interest.

The first sound principle of government control is that it should extend no farther than is necessary to correct the fundamental wrongs of the unregulated system. By going no farther than that, the undeniable advantages of individual enterprise can in large part be retained. Granted that there are abuses in our present situation which need correction, that fact clearly is no warrant for going to the extreme of all inclusive, detailed regulation. There is far too much to the credit of private and individual enterprise to justify throwing it all away in the hope that some control board can make a better job of it.

Complexities Involved

I have the feeling that those who advocate a control of public utility scope for the oil industry have not fully considered the complexities involved in such a control. Even if you could select a nonpolitical board or commission of well-informed, impartial men and put at their service the required hundreds of the most competent assistants—attorneys, examiners, accountants, inspectors and what not, they would be confronted by a maze of controversies and their decisions in many cases would satisfy none of the parties involved. If, because of the unsatisfactory conditions that exist today, an executive feels that he must choose between complete government control and receivership he must also consider that government control is no assurance of solvency. Government regulation of railroads, which not only includes their charges to the public but goes far into the field of management, has not assured railroad prosperity or prevented receiverships, nor has it stimulated progressive service to the public.

One gains the impression in Washington that in their effort to lift this country out of the depression the authorities are trying to do too many things and to do them too rapidly. It is sound, I think, to do the basic things first.

I have no novel suggestions to make as to these basic things. There are two I think which should be done just as quickly as possible, and a third, which will take longer but is of vital importance. The first is effective control of crude oil production and withdrawals from storage. The second is the purchase of surplus gasoline by those companies which have far flung outlets, accompanied by a corresponding reduction in manufacture which will involve a satisfactory amendment to the refining section of the code. The third is relief from excessive taxation. If the first two of these proposals are put into effective operation and do not correct the situation it will then be in order to consider the next measures of control.

Control of Production

There are sound social reasons for government control of crude oil production, as every one in the industry knows. A limited and irreplaceable resource of great importance to the public should be drawn upon only as needed; the methods of production should be such as to conserve both gas and oil and promote the greatest ultimate recovery. This, under the law of capture, is impossible without government control. Such control involves Federal action supplementing that of the states and a Federal statute should be enacted for that purpose. Proposed legislation of this character would have the support of the rank and file of the industry.

If such a bill were drafted by the Petroleum Administrative Board in co-operation with the Planning and Co-ordination Committee and started on its course through Congress, advocated by the President, I believe that an agree-

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Industry Must Neither Be Monopolized Nor Raided Declares Russell B. Brown

By RUSSELL B. BROWN
Secretary of Planning and Co-ordination Committee*

Back of all these efforts, contests, suits at law, conferences and meetings, this fundamental truth can be seen: The oil industry must have some form of control. If that control is not through some legal form defined by legislation, then such control will be usurped by the strongest forces in the industry. Somebody must sit upon the throne or there will be anarchy. The attempt through the code is to avoid both autocracy and anarchy. It attempts self-government for the industry as in better accord with the principles of democracy. It attempts to eliminate all special favors and special privileges and to assure to all, large and small alike, a fair field, with assurances of cost recovery. The degree of success it has already attained seems to justify the efforts which have been made. That success would have been larger if that selfishness which is a characteristic of us all had been more enlightened in the case of some who were unwilling to submit to any type of control.

The overproduction which characterized Oil Creek in 1859 is still characterizing some fields. There are some minds which seem unable to think in terms of profit because for many years they have been accustomed to measure their success in so many barrels produced rather than for the money received for that production. It seems equally difficult to make many understand that there is a hereafter. They live in the present. They cannot see that if they sell 1,000 bbls. of oil at 10 cents a barrel they cannot sell any portion of that 1,000 bbls. later on for 75 cents or $1 a barrel. They forget there is a next week. Apparently they would drain the greatest oil field in the world in a single day, if that were possible, and boast of their success, regardless of the fact that the market could not absorb their production and that they had lost countless millions of dollars through their lack of wisdom.

*Before A.P.I. Division of Production, Eastern District, State College, Pa.

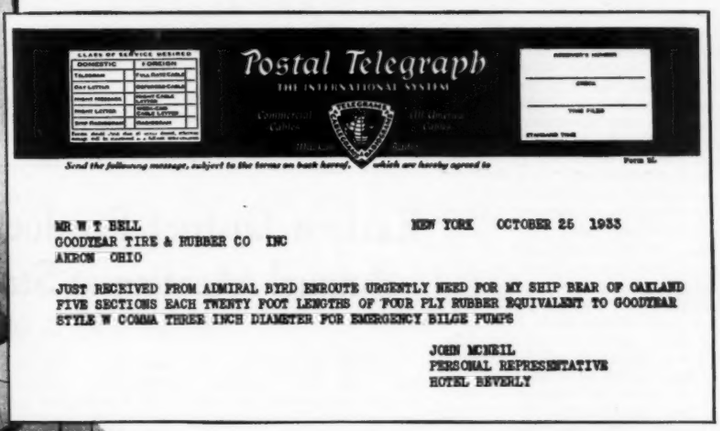
Must Think of Whole Industry

The producer must not lose sight of the fact that he is not only concerned in the actual production of oil, but every producer has a vital interest in the welfare of every other phase of the oil industry. After all, the refineries cannot pay more for crude petroleum than what they are able to realize from the prod-

(Continued on Page 41)

WITH BYRD IN POLAR SEAS!

His Supply Ship "Bear" Clears Bilge with GOODYEAR SUCTION HOSE



Postal Telegraph
THE INTERNATIONAL SYSTEM

Send the following message, subject to the terms on back hereof, which are hereby agreed to

MR W T BELL NEW YORK OCTOBER 25 1933
GOODYEAR TIRE & RUBBER CO INC
AKRON OHIO

JUST RECEIVED FROM ADMIRAL BYRD ENROUTE URGENTLY NEED FOR MY SHIP BEAR OF OAKLAND FIVE SECTIONS EACH TWENTY FOOT LENGTHS OF FOUR PLY RUBBER EQUIVALENT TO GOODYEAR STYLE W COMMA THREE INCH DIAMETER FOR EMERGENCY BILGE PUMPS

JOHN MCNEIL
PERSONAL REPRESENTATIVE
HOTEL BEVERLY

ADMIRAL ORDERS STYLE "W"

His Own Message Reads Like a G.T.M. Specification

Byrd and his gallant crew are down there now, alongside the great ice barrier at Bay of Whales and Little America. Only the radio binds them to kin.

Standing by also has been the Admiral's supply ship, "Bear of Oakland", equipped with another steadfast connection with safety—*Goodyear Style "W" Suction Hose.*

We speak of it very modestly in our catalog: "It will give excellent service and where it is given good care it will stand up under considerable punishment."

Evidently the Admiral weighed every word of that when he radioed his order.

YOU and the G.T.M.

Your business, too, may be exploring, these days. Certain things you can anchor to: *Quality*, scientifically produced; *Efficiency*, expertly applied.

Goodyear makes a world-recognized line of Mechanical Rubber Goods. The G.T.M.—Goodyear Technical Man—knows where these goods can operate to your advantage. Why not get your equipment problem and the G.T.M. together?

Write Goodyear, Akron, Ohio, or Los Angeles, Calif., or call your Goodyear Mechanical Goods Distributor.

BELTS • MOLDED GOODS
HOSE • PACKING
MADE BY THE MAKERS OF GOODYEAR TIRES

THE GREATEST NAME IN RUBBER

GOODYEAR

Wage Differentials as Proposed by Planning and Co-ordination Committee Subject to Review

WASHINGTON, D. C., Apr. 9. — A formal hearing on wage differentials proposed for employes in the oil industry by the Planning and Co-ordination Committee was ordered by Secretary Ickes, oil administrator, to permit workers to review these recommendations and to submit counter proposals.

Administrator Ickes instructed the Petroleum Labor Policy Board, which he established to assist him in administering the labor provisions of the code, to conduct the hearings, which will open at 10 a.m. Thursday, April 12, in the Interior Department Auditorium.

"When the oil code was promulgated," Administrator Ickes said, "provision was made for the equitable adjustment of wage differentials between common laborers receiving the code minima and all other employes. On November 15, 1933, an order was issued by me approving a recommendation of the Planning and Co-ordination Committee that when the rates for these employes were determined, they should be retroactive to September 2, the effective date of the code.

"Because of the complexity of the problem, several months have been required by the Planning and Co-ordination Committee to prepare and recommend the wage differentials to me. I feel that every means of assuring fairness to the employes should be utilized, and that they should be given ample opportunity to review the recommendations made by the committee for the industry and to present their own recommendations.

"In accord with this belief, I have instructed the Petroleum Labor Policy Board to hold public hearings on the proposals of the committee, so that employes will be able to present their suggestions with respect to the proposed rates, and so that the board may assemble all possible factual data on which to base a recommendation to me."

Occupation and minimum differentials in drilling operations were established by the order promulgated March 20. The recommendations on production, pipe line and natural gasoline operations follow:

Region 1

Code minimum hourly rates for common labor: New England, New York, New Jersey and Pennsylvania, 52 cents; West Virginia and Maryland, 45 cents.

Occupation and Minimum Differentials

Group 1—Minimum wage to be base labor rate. Definition: Workman engaged in jobs requiring neither skill nor experience—common laborers, watchmen, janitors.

Group 2—Minimum wage to be base labor rate, plus 7 cents. Definition: Workman having reasonable amount of experience in one or more of the jobs listed or in similar types of work:

Natural gasoline—Roustabout, fireman, yardman, light truck driver, linewalker.

Production—Roustabout, switcher, pumper, light truck driver, yardman, portable rig clean out helper.

Pipe line—Roustabout, yardman, connection man, light truck driver, groundsman, fireman, linewalker.

Group 3—Minimum wage to be base labor rate, plus 12 cents. Definition: Workman being semi-skilled in one or more of the jobs listed or in similar types of work:

Natural gasoline—Engineer (second class or oiler), stillman (second class), rackman, utility man, fieldman, heavy truck driver (three ton or over).

Production—Gang pusher, gas engine repairman, heavy truck driver, tractor driver, utility man, standard rig clean out helper, gas lift plant operator, field meterman.

Pipe lines—Oiler, stock gauger, delivery gauger, blender gauger, rackman, booster and gathering station engineer, lineman, telegraph operator, utility man, heavy truck driver (three ton or over), tractor driver.

Group 4—Minimum wage rate to be base labor rate, plus 17 cents. Definition: Workman being skilled in one or more of the jobs listed or in similar types of work.

Natural gasoline—Engineer (first class), stillman (first class), leader, operator, fractionator operator, maintenance and repair mechanics (second class).

Production—Portable rig clean out man, maintenance and repair mechanic (second class).

Pipe lines—Primary station engineer, assistant district gauger, maintenance and repair mechanic (second class).

Group 5—Minimum wage to be base labor rate, plus 27 cents. Definition: Workman specialized, fully experienced and engaged in one or more of the jobs listed or similar types of work.

Natural gasoline—Repairman, meterman, maintenance and repair mechanic (first class).

Production — Maintenance and repair mechanic (first class), standard rig clean out man, electrician.

Pipe lines — Maintenance and repair mechanic (first class).

Insofar as the above classifications and recommended differentials affect Production, Pipe Line and Natural Gasoline operations in "Stripper" well areas a 15 per cent reduction from the rate obtained by applying the differential shall be made, but in no instance shall the rate be less than the base labor rate for the region.

Region 2

Code minimum hourly rates for common labor: Arkansas and Louisiana, 48 cents; Mississippi, Tennessee, etc., 45 cents. Differentials same as in Region 1.

Region 3

Code minimum hourly rate for common labor: Illinois, Indiana, Michigan and Ohio, 52 cents; Missouri, 48 cents; Kentucky, 45 cents. Differentials same as in Region 1.

Region 4

Code minimum hourly rates for common labor: New Mexico, 50 cents; Kansas, Oklahoma, Texas, 48 cents. Differentials same as in Region 1.

Region 5

Code minimum hourly rates for common labor: Colorado, Idaho, Montana, Utah, Wyoming 50 cents. Differentials same as in Region 1.

Region 6

Code minimum hourly rates for common labor. California, Nevada, Oregon and Washington, 52 cents.

Production Operations

Occupations and minimum differentials:

Group 1 (common labor), 0 cents.

Group 2, 6 cents: No listings.

Group 3, 12 cents: Roustabout, No. 2.

Group 4, 18 cents: Roustabout, No. 1, boiler washer, fireman, gas engine repairman helper, boilermaker helper, repairman helper, shop helper.

Group 5, 24 cents: Pumper, dehydrator operator, well puller, blacksmith heavy helper, blacksmith light helper, electrician helper.

Group 6, 30 cents: Toolrackman, pipe machine operator, repairman, painter, blacksmith (handwork), well cleaner helper.

Group 7, 36 cents: Head roustabout, boilermaker, rig repairman, blacksmith (light).

Group 8, 42 cents: Head well puller, welder, machinist, electrician.

Group 9, 54 cents: Head well cleaner, blacksmith (heavy), rig builder.

Natural Gasoline Operations

Occupations and minimum differentials:

Group 1 (common labor), 0 cents: Janitor, gardener, cleanup man, weed cutter, ditch digger, yard laborer, men loading and unloading cars (not otherwise classified), watchman, guard, gateman.

Group 2, 6 cents: No listings.

Group 3, 12 cents: Mechanic helper, roustabout.

Group 4, 18 cents: Laboratory tester, chart collector, oiler, fireman.

Group 5, 24 cents: Field tester, meterman, mechanic, No. 2.

Group 6, 30 cents: Operator, mechanic, No. 1.

Group 7, 36 cents: Gas tester.

Group 8, 42 cents: Special mechanic.

Definitions:

Common labor: That type of labor employed in other lines of industry and not peculiar to the oil industry.

Roustabout: That type of labor engaged in work requiring general knowledge of the use of simple tools, equipment and common practices employed in the oil industry.

Mechanic No. 2: An employe assigned to mechanical and building work requiring limited skill but not close supervision of a foreman of a mechanic No. 1.

Mechanic No. 1: An employe engaged

Eastern District Production Division in Annual Meeting at State College, Pa.

BY ROBERT C. CONINE

STATE COLLEGE, Pa., Apr. 7.—More than 150 oil and gas operators attending the annual meeting of the Eastern district, Division of Production of the American Petroleum Institute here April 6 and 7 were convinced that a position of leadership is assured for the Pennsylvania petroleum industry in refinery technology and production engineering through the efforts of Pennsylvania State College. Visits to the laboratories of the school of mineral industries and the departments of chemistry and physics concerned with petroleum revealed marked progress in the work of devising methods for increasing ultimate recovery of Pennsylvania Grade crude oil and in the improvement of the products thereof.

J. H. Newlon, of Philadelphia Co., Pittsburgh, was elected chairman of the Eastern district at the close of the meeting. Other officers elected are H. H. Phillips, of T. W. Phillips Oil & Gas Co., Butler; J. C. Askam, Ohio Oil Co., Findlay; C. A. Bonine, school of mineral industries, State College, vice chairman. F. E. Eckert, of Hanley & Bird, Bradford, was named vice chairman as well as secretary and treasurer.

Advisory Committee

Members named on the advisory committee are as follows: Ralph T. Zook, Sloan & Zook Co., Bradford, chairman; S. J. Brendel, Penn United Gas Co., Pittsburgh; Frank Brewster, Belmont Quadrangle Drilling Co., Bradford; E. F. Clagett, Pure Oil Co., Saginaw, Mich.; J. G. Montgomery, Jr., United Natural Gas Co., Oil City; P. H. Curry, South Penn Oil Co., Pittsburgh; Forest D. Dorn, Forest Oil Corp., Bradford; S. W. Meals, Carnegie Natural Gas Co., Pittsburgh; C. C. Reed, Hope Natural Gas Co., Clarksburg, W. Va.; K. C. Heald, Gulf Oil Co., Pittsburgh; J. R. Reeves, Cities Service Co., Elmira, N. Y.; J. French Robinson, Lycoming Natural Gas Co., Wellsboro; Frank Schauer, Equitable Gas Co., Pittsburgh; F. N. Speller, National Tube Co., Pittsburgh; J. B. Tonkin, Peoples Natural Gas Co., Pittsburgh; Paul D. Torrey, Torrey, Fralich, Simmons, Bradford, and Don Wilson, Columbia Gas & Electric Corp., New York City.

Dean Edward Steidle of the school of mineral industries welcomed the A.P.I. members and urged them not to overlook the fact that there are six other schools at the college which duplicate in thoroughness the curricula and facilities of the mineral industries school. J. G. Montgomery, Jr., superintendent and geologist of the United Natural Gas Co., Oil City, chairman of the A.P.I. division, presided at the sessions.

Design and operation of control equipment for high-pressure gas regulation was covered in the presentations of Jack Gaddess, assistant manager of the North Penn Gas Co., Port Allegheny, and Joe Chilcote, superintendent of the Lycoming Producing Corp., Wellsboro. A formal discussion of the two papers was presented by T. H. Myers, manager of Penn United Gas Co., Wellsboro.

Courses of Study

Prof. H. B. Northrup, director of mineral industries extension of the college, showed how the school is making it possible for employes of producing and refining companies to increase their value to their employers through courses of study wherever they may be located. E. E. Bown, refinery manager of Kendall Refining Co., Bradford, reported on the advantages accruing from employe education at the Kendall company.

Not a few Pennsylvania producers went away determined to give oil well cementing a try in their operations as the result of the paper presented by C. P. Parsons, field engineer of the Halliburton Oil Well Cementing Co., Duncan, Okla. The formal discussion was by H. K. Dougherty, general superintendent of the Sloan-Zook Co., Bradford.

J. Russell Craig, safety director of the Pennsylvania Indemnity Cos., Philadelphia, in his paper, "New Deal in Safety," left no doubt in the minds of his hearers that accident prevention and first aid instruction cannot be overstressed. R. S. Bonsib, chief safety inspector of Standard Oil Co. of New Jersey, New York City, presented the discussion of this paper.

Russell B. Brown, assistant to the chairman and secretary of the Planning and Co-ordination Committee, discussed the oil code as it applies to the producer, after warning the group that he expressed only his personal opinions.

Don't make straight-run gasoline—any more than you can help

If you must make it, reform it

That makes it into good anti-knock gasoline—the kind the engine likes

Dubbscracking is the way to reform distress gasoline into premium gasoline

You can always get the price for Dubbscracked gasoline

Universal Oil Products Co
Chicago, Illinois

Dubbs Cracking Process
Owner and Licensor

in mechanical and building work requiring the skill of a finished workman in the various crafts. He shall have had several years of experience in one or more trades and be thoroughly familiar with the equipment and methods employed in the oil industry.

Pipe Lines, Region 6

Code minimum hourly rates for common labor: California, Nevada, Oregon and Washington, 52 cents. Occupation and minimum differentials:

Group 1, (common labor) 0 cents: Common laborer, gardener, janitor, gateman, watchman.

Group 2 (special labor) 6 cents: Line rider No. 2, roustabout No. 2.

Group 3, (semi-skilled labor) 12 cents: Line rider No. 1, roustabout No. 1, boiler washer, mechanic helper.

Group 4, 18 cents: Fireman No. 2.

Group 5, 24 cents: Fireman, pumper, third engineer.

Group 6, 30 cents: Second engineer, mechanics No. 2.

Group 7, 36 cents: First engineer, mechanic No. 1.

Refineries, Region 1

Inland:

Code minimum hourly rates for common labor: Western New York and Western Pennsylvania, 52 cents; West Virginia, 45 cents.

Occupation and minimum differentials: Stillman, pressure stills, 30 cents; stillman, pipe stills, 25 cents; boilermaker, first class, 25 cents; machinist, first class, 25 cents; fireman, stills, 15 cents.

Seaboard:

Code minimum hourly rates for common labor: New England, New York Harbor and Philadelphia area, 52 cents; Baltimore area, 45 cents.

Occupation and minimum differentials: Stillman, pressure stills, 45 cents; stillman, pipe stills, 45 cents; boilermaker, first class, 34 cents; machinist, first class, 34 cents; fireman, stills, 18 cents.

Region 2

Code minimum hourly rates for common labor. Arkansas and Louisiana, 48 cents; Mississippi, Tennessee, etc., 45 cents.

Occupation and minimum differentails: None recommended by Regional Committee.

In the absence of specific recommendations for Refinery differentials from Region 2, the Planning and Co-ordination Committee recommends the application of the following differentials as set up by the Committee for Region 4. The fourth Region's differentials are selected because the greater part of the refining operations in Region 2 are adjacent to similar operations in Region 4, and operate under substantially like conditions.

The difference in code minimum rates between the South Atlantic and West South Central Division afford the necessary balancing of these differentials between the Eastern and Western halves of Region 2.

Group 1 (common labor), 0 cents: Common labor, yard labor, cleanup man, janitor, tank cleaner, barrel cleaner, still cleaner, sample boy, gateman.

Group 2 (special labor), 6 cents: Mechanical helper (second class), line walker, loader helper, truck driver, laboratory tester (helper).

Group 3 (semi-skilled labor) 12 cents: Pumper tender, sump tender (pumper, second class), warehouse man (helper or counter man), tester, gauger, greasemaker and compounder helper, mechanic helper (first class), vapor recovery plant and stabilizer helper, percolating filter helper, wax press operator helper.

Group 4, 18 cents: Centrifuge helper, boiler fireman, pumper (first class), tank car and truck loader, treater helper, still foreman (Class A or stillman helper), mechanic (second class).

Group 5, 24 cents: General utility man, acid recovery operator helper, treater (refined oil), percolating filter operator, wax press operator, contact filter man, centrifuge operator.

Group 6, 30 cents: Acid plant operator, compounder and greasemaker, treater (lubricating oil), engineer (power plant or boiler house), mechanic (first class), stillman (Class C, rerun), contact filter plant operator, refrigerating engineer.

Group 7, 36 cents: Stillman, Class B.

Group 8, 42 cents: Stillman, Class A.

Definitions:

Stillman, Class A: An employe, subject to the hours of the code, having complete direct responsibility for the operation of a battery of cracking or reforming units, primarily producing gasoline, having a rated cracked gasoline capacity of 1,000 bbls. (42 gallons per barrel) or more a day.

Still, Fireman, Class A: Employes engaged essentially in firing pressure and/or cracking units as defined above.

Mechanic, First Class: A first class mechanic is one capable of working from blue prints, and actually performing the highest class of mechanical work, field construction and maintenance.

These men are not classed as foremen, although they supervise one or more helpers, or lower paid mechanics.

Region 3

Code minimum hourly rates for common labor: Illinois, Indiana, Michigan, Ohio, 52 cents; Iowa, Missouri, Nebraska, South Dakota, 48 cents; Kentucky, 45 cents.

Occupation and minimum differentials: Stillman, Class A, 45 cents; stillman, Class B, 39 cents; stillman, Class C, 33 cents; machinist, first class, 30 cents; pipefitter, first class, 25 cents; fireman, cracking stills, etc., 20 cents; fireman, crude stills, etc 15 cents.

Definitions:

Stillman, Class A: An employe subject to hours of the code, having complete direct responsibility for the operation of a battery of cracking or reforming units, or a combination of crude and cracking units having an average gasoline production when operating of 1,500 bbls. (42 gallons) or more per day, and/or a battery of crude, lubricating or rerun units having an aggregate average total throughput when operating of 5,000 bbls. or more per day. Nothing herein is intended to imply that differentials shall be made the same for crude, lubricating and rerun stillmen as for cracking, reforming, and combination stillmen, in plants where such differentials are now different, provided such differentials, in no case, are lower than as set forth herein.

Stillman, Class B: An employe in training as stillman, Class A, such training period not to exceed six months; or an employe, subject to the hours of the code, having complete direct responsibility for the operation of a battery of cracking or reforming units, or a combination of crude and cracking units having an aggregate gasoline production when operating of less than 1,500 bbls. (42 gallons) per day, but not less than 500 bbls. per day, and/or a battery of crude, lubricating and rerun units having an average total throughput when operating of less than 5,000 bbls. per day, but not less than 1,666 bbls. per day.

Stillman, Class C: An employe, subject to hours of the code, having complete direct responsibility for the operation of stills having a smaller gasoline production or oil throughput than as described above for stillman, Class B.

Fireman, cracking stills, etc.: Employe engaged essentially in firing one or more cracking or reforming units or combination of crude and cracking units.

Fireman, crude stills, etc.: Employe engaged in firing crude stills, lubricating or rerun units. Nothing herein is intended to imply that differentials shall be higher for fireman on cracking, reforming and combination units than on crude, lubricating and rerun units in plants where such differentials are now the same, provided such differentials, in no case, are lower than as set forth above.

Machinist, first class: Mechanic capable of working from blue prints and actually performing high class machine work, field erection and maintenance.

Pipe fitter, first class: Fitter capable of working from blue prints, actually engaged in laying out and performing all types of refinery pipe work.

Region 4

Code minimum hourly rates for common labor: New Mexico, 50 cents; Kansas, Oklahoma and Texas, 48 cents.

Occupation and minimum differentials, same as in Region 2.

Region 5

Code minimum hourly rates for common labor: Colorado, Idaho, Montana, Utah, Wyoming, 50 cents.

Occupation and minimum differentials: Stillman, pressure stills, 45 cents; stillman, pipe stills, 35 cents; machinist, first class, 35 cents; boilermaker, first class, 30 cents; fireman, stills, 15 cents.

Region 6

Code minimum hourly rates for common labor: California, Nevada, Oregon and Washington, 52 cents.

Occupation and minimum differentials:

Group 1, (common labor) 0 cents: Janitors, gardener, clean-up man, weed cutter, ditch digger, yard laborer, men loading and unloading cars (unless otherwise classified), watchman, guard, gateman, etc.

Group 2 (special labor), 6 cents: Tank car cleaner, line walker, barrel cleaner, etc.

Group 3, (semi-skilled labor) 12 cents: Pump tender, sump tender, barrel painter, package filler and weigher (barrel), warehouseman (handling packages) boiler washer, compounder helper, tank car and truck loader helper, mechanic helper.

Group 4, 18 cents: Greasemaker helper, boiler fireman, gauger, laboratory tester, stabilizer and compression plant operator helper, tank car and truck loader, treater helper (refined oil), still fireman.

Group 5, 24 cents: Stillman helper, general utility man, pumper, treater helper (lub oil), acid plant operator helper, mechanic, No. 2.

Group 6, 30 cents: Rerun stillman, acid plant operator, compounder, treater (refined oil), engineer (power plant or boiler house), stabilizer and compression plant operator, mechanic, No. 1.

Group 7, 36 cents: Treater (lub oil), dispatcher, greasemaker, crude stillman, asphalt stillman, lub stillman.

Group 8, 42 cents: Pressure stillman.

Definitions:

Common labor: That type of labor employed in other lines of industry and not peculiar to the oil industry.

Special labor: That type of labor capable of performing the simplest of duties specifically pertaining to the oil industry but not requiring any particular training or experience.

Semi-skilled labor: That type of labor capable of performing duties specifically pertaining to the oil industry but requiring limited training and experience.

Mechanic No. 2: An employe assigned to mechanical and building work requiring limited skill but not close supervision of a foreman of a mechanic No. 1.

Mechanic No. 1: An employe engaged in mechanical and building work requiring the skill of a finished workman in the various crafts. He shall have had several years of experience in one or more trades and be thoroughly familiar with the equipment and methods employed in the oil industry.

New World Record for Deep Drilling Set by General Petroleum Test in Belridge

By L. P. STOCKMAN

LOS ANGELES, Calif., Apr. 9.—General Petroleum Corp., California subsidiary of Socony Vacuum Corp., broke the world's drilling record for depth late Saturday when the bit in No. 1 Berry, in the South Belridge Field of Kern County, exceeded the previous depth record of 10,944 feet chalked up last year by Ed McAdams in No. 1 Lillis-Welsh, an outpost in the North Dome of Kettleman Hills. General Petroleum is still drilling ahead and No. 1 Berry may consequently be carried substantially below the 11,000-foot level unless the status of the well shows a very material improvement in the immediate future.

R. A. Sperry, vice president of the company, stated a few days ago that no important showings had been encountered up to that time but that it was the intention to continue drilling as long as geological formations offered hope and mechanical conditions permitted. No. 1 Berry, originally started as a Temblor test, has drilled through the greatest thickness of brown shale penetrated in California up to date as this formation was picked up almost at the grass roots. The expenditure involved in the drilling of this deep test is felt justified as the company's holdings would be greatly enhanced if substantial production should be developed.

Spudded September, 1930

General Petroleum's deep well was spudded September 18, 1930, and 20-inch casing was landed at 728 feet a week or so later. A string of 13⅜-inch casing was landed and cemented at 4,534 feet May 19, 1931, and drilling continued uninterruptedly until March 19, 1932, when drilling operations were temporarily suspended at 8,260 feet and the hole plugged back to 4,440 feet as a precautionary measure. Work was again resumed in August, 1933, and the hole subsequently carried down to 9,720 feet. In January, 1934, a string of 8⅝-inch National Seamless Grade D was landed at 7,745 feet as a conductor string for the 6⅝-inch landed and cemented at 9,716 feet with 275 sacks of cement.

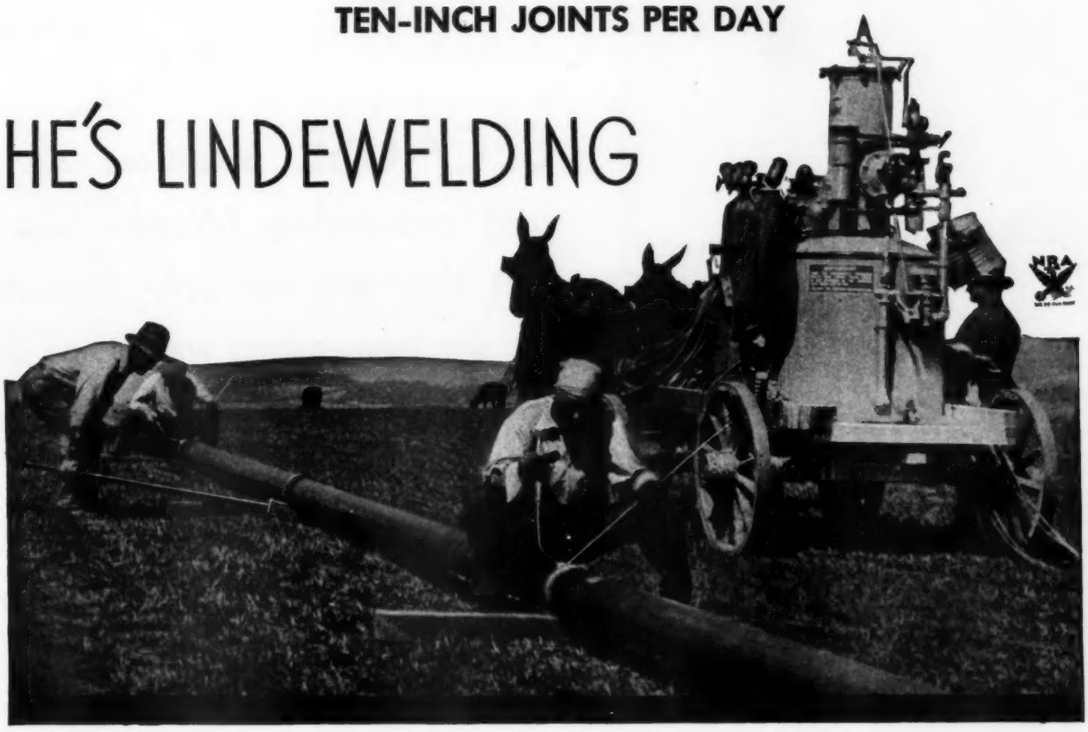
The significance that attaches to the General Petroleum's deep test lies in the fact that if the company proves the South Belridge Field as highly prolific it will at the same time greatly increase the recoverable reserves of the state and tend to stimulate deep drilling in other San Joaquin Basin fields, particularly those districts along the western rim of the basin where possibilities appear to be rather favorable.

Union Has Rival

Temblor production has been found to be unusually prolific in the Kettleman North Dome and both the Temblor and Eocene have been proved to be unusually productive in the North Belridge Field. In addition to present Temblor production it appears quite probable that the Eocene will undoubtedly be found productive in the Kettleman-North Dome Field as the North Kettleman Oil & Gas Co. had definitely picked up the Eocene when a premature explosion wrecked the company's chances of testing this formation. Union Oil Co. has taken over this well and will attempt to clean out the hole and carry it to the Eocene which was logged by Ed McAdams slightly above 10,944 feet. If Union can recover from the mechanical difficulty that baffled Ed McAdams it may finish the deepest producer in the world, as everyone familiar with the drilling admits this well presents unusual possibilities for development of deep production. Those interested in future production of California should watch developments in both Union's No. 1 Lillis Welsh and General Petroleum's No. 1 Berry, as both are extremely important. General Petroleum had reached a depth of 10,970 feet late Sunday and drilling operations are going ahead smoothly at last reports.

WHEN A WELDER Makes 42 TEN-INCH JOINTS PER DAY

HE'S LINDEWELDING



LINDEWELDERS on a 200-mile 10-in. oil line in East Texas averaged from 35 to 42 Lindewelds a day each. Every joint tested strong and tight.

Lindewelding makes records like this because it is a better and faster method of oxy-acetylene welding. It reduces welding time 50 to 67 per cent. and reduces consumption of welding materials 25 to 50 per cent.

Lindewelding can be done with an ordinary blowpipe or with special apparatus which makes the welding almost automatic and further increases its speed. Experienced welders quickly master Lindewelding technique, and beginners learn it more rapidly than other methods.

Procedure Controls for Lindewelding are available to all users of Linde Oxygen as a part of Linde Process Service. If faster welding, stronger joints, and lower costs would mean bigger profits this year, ask our nearest district office for complete information today.

Study Lindewelding Technique in this Motion Picture

Our motion picture, "The Lindeweld Process for Pipe Line Construction," shows every detail of Lindewelding technique, which differs from neutral flame welding technique in that it employs a special rod, a special flame adjustment and the "backhand" method of blowpipe manipulation. It reveals the actual steps in making a Lindewelded joint. Pipe line officials and welding or engineering societies may borrow this picture free of charge by writing to any Linde District Office. It is furnished in 16 mm. and 35 mm. safety film.

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Unit of Union Carbide and Carbon Corporation

126 Producing Plants UCC 627 Warehouse Stocks

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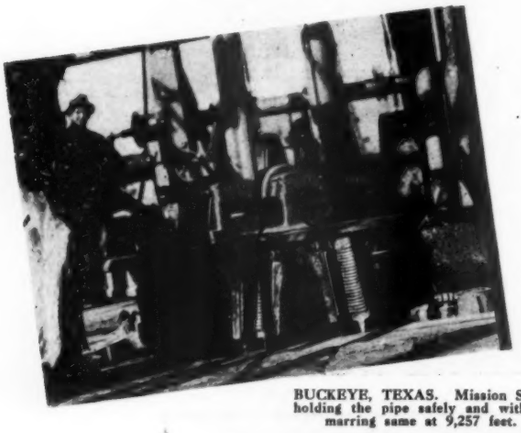
Why MISSION SLIPS . . . DEEP WELL

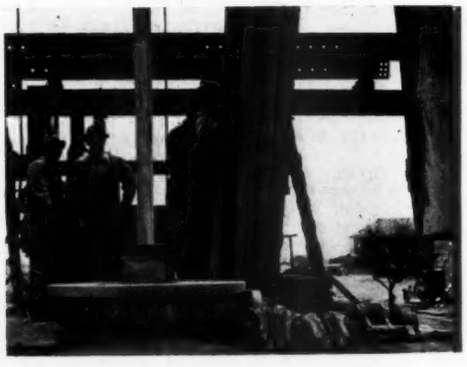
SWEET LAKE, LOUISIANA. Heading for 10,000 feet . . . Mission Slips handling the drill stem.

BECAUSE operators *know* from past outstanding Mission Slip records that they are not only absolutely safe for the tremendous weights of deep well strings . . . but that they positively will not mar the pipe and casing . . . and that THEY PAY FOR THEMSELVES IN THE PIPE AND CASING THEY SAVE.



BUCKEYE, TEXAS. Mission Slips holding the pipe safely and without marring same at 9,257 feet.

BUCKEYE, TEXAS. Mission Slips performing their usual efficient service at 8,400 feet.



GILLIS, LOUISIANA. This well standing at 8,125 feet with Mission Slips on the job.

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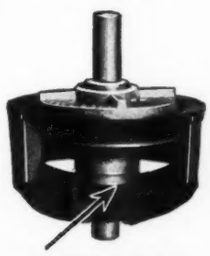

MISSION VALVE

1
MISSION PISTON

MISSION POLICY:

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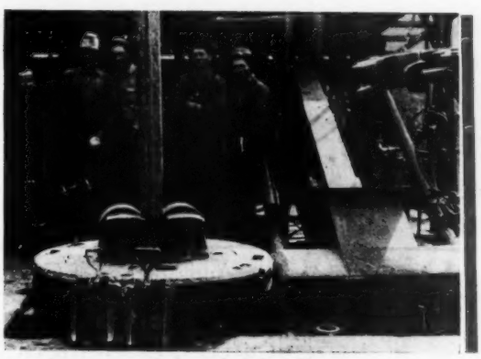
- That this is not an empty promise is proven by the results of constant improvement in the Mission Slips and Mission Valves; having brought them to unquestioned superiority.
- NEW IMPROVED MISSION PISTONS, in line with this policy, have recently been greatly improved because we felt that even though our old piston design was among the leaders, it did not occupy that position of clean-cut superiority we demand, hence the constant research and experimentation which has resulted in the NEW IMPROVED MISSION PISTON.

MISSION VALVE RECORDS EQUALLY ASTOUNDING

Ever since the introduction of Mission Slush Pump Valves leading oil companies and operators have shown in their production reports astounding record after astounding record made with the Mission Valve . . . *one set making 58,000 feet of hole without the replacement of a single part . . . five wells without the replacement of a single part . . . 9,131-foot well at Refugio, trouble-free under terrific pressure . . . time after time reports show where the installing of Mission Valves has changed exasperating valve trouble into trouble-free service.*

We will be glad to furnish you with a list of these unprecedented Valve records . . . or equally astounding records on other Mission Products.



JENNINGS, LOUISIANA. This well at 7,345 feet and going down with dependable Mission Slips that save the pipe performing with their well-known efficiency.

HAYS, LOUISIANA. Mission Slips, that have made so many records on so many deep wells, performing perfectly on this well that is now down 8,903 feet.

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THE OIL AND GAS JOURNAL

PRODUCING REFINING NATURAL GASOLINE PIPE LINE

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Back to Fundamentals

The price of crude, refiners say, is out of line with the price of gasoline.

But the better price for crude reflects the progress made by the producers in curtailing overproduction.

The low price of gasoline reflects the failure of refiners to make similar progress in limiting output to demand.

With the exception of an unruly few in East Texas crude producers in practically every other district in the country have submitted to proration. If there had been equal zeal in curtailing gasoline output throughout the country East Texas would have been proportionately much less disturbing.

There is a growing confidence that crude production will be controlled. No one is willing to hazard a guess on the refining and marketing outcome.

The original refining article in the code has been practically abandoned as unworkable and a draft of a new section has been made public by the oil administration, (neither approved nor disapproved by Mr. Ickes), for further consideration by the industry this week.

The new set-up, Mr. Ickes says, vests the industry with control of agencies, subject to approval of the administrator, to regulate gasoline production and stocks to demand.

A Federal Agency, designated by the President, would divide the country into eight refining districts and determine the proper relationship between inventories and sales and operating schedules in each district.

These would be arrived at by the Planning and Co-ordination Committee appointing an allocator in each district, subject to approval by the President, from nominations by the refiners in the district.

The Planning and Co-ordination Committee would appoint, subject to approval by the President, a Board of Review for each district to review the findings of the allocator.

The allocator and the Board of Review would make every effort to avoid inequities in the supplies of crude to refiners and recommend such withdrawals from storage as necessary.

Decisions of the Board of Review on appeals would be final subject to approval of the Planning and Co-ordination Committee and the President. The Planning and Co-ordination Committee would also appoint, subject to approval by the President, a national co-ordinator of refining operations to determine interregional adjustments in district allocations.

A committee of five to be known as the Gasoline Equalization Committee would be appointed with approval by the President, by the Planning and Co-ordination Committee, to purchase surplus gasoline and name a manager.

In case of an excessive supply in any district, or a refiner wilfully fails to conduct his operations within the allocations, the district allocator, with the approval of the Planning and Co-ordination Committee, could establish quotas for the movement of motor fuel in that district, enforced by the requirement of serially numbered certificates on shipments.

This summary of the proposed substitute section, published in full elsewhere in this issue, is apparently the net result of seven months of vain effort under the original section. It has at least stimulated talk of a compromise.

Meanwhile, as Fayette Dow told the Western Petroleum Refiners Association meeting, price fixing and uniform contracts—"still somewhere on the calendar of unfinished business"—absorbed so much of the industry's attention that the reduction of refining operations--"one of the great fundamentals"—got only the attention that was left over.

Now, however, this proposed substitute refining section of the code brings it to the center of the stage where it always belonged. With as definite a plan for control of gasoline supply as we have had for control of crude supply the other details would soon be settled.

Reports that an agreement has been reached at a meeting in New York await practical application.

It will be hoped that the oil administration and the industry will now stick with this "fundamental" until it is disposed of and not be diverted into any more blind alleys.

Milk and Gasoline

Facing overproduction we must find the way to avert the natural consequences, price cutting below cost, reduction of wages, dissipation of capital, unemployment, depression and distress.

This is the conclusion of W. T. Nardin, vice president and general manager of the Pet Milk Co. in an article in Printers Ink. Milk and gasoline have in common, besides daily consumption, overproduction and what Mr. Nardin says is just as applicable to the oil industry.

The practice of manufacturers producing surplus, then attempting to dispose of it by cutting prices, when they know competitors will meet their prices and the lower prices will have no appreciable influence to increase consumption is, he says, such utter folly as to be beyond comprehension.

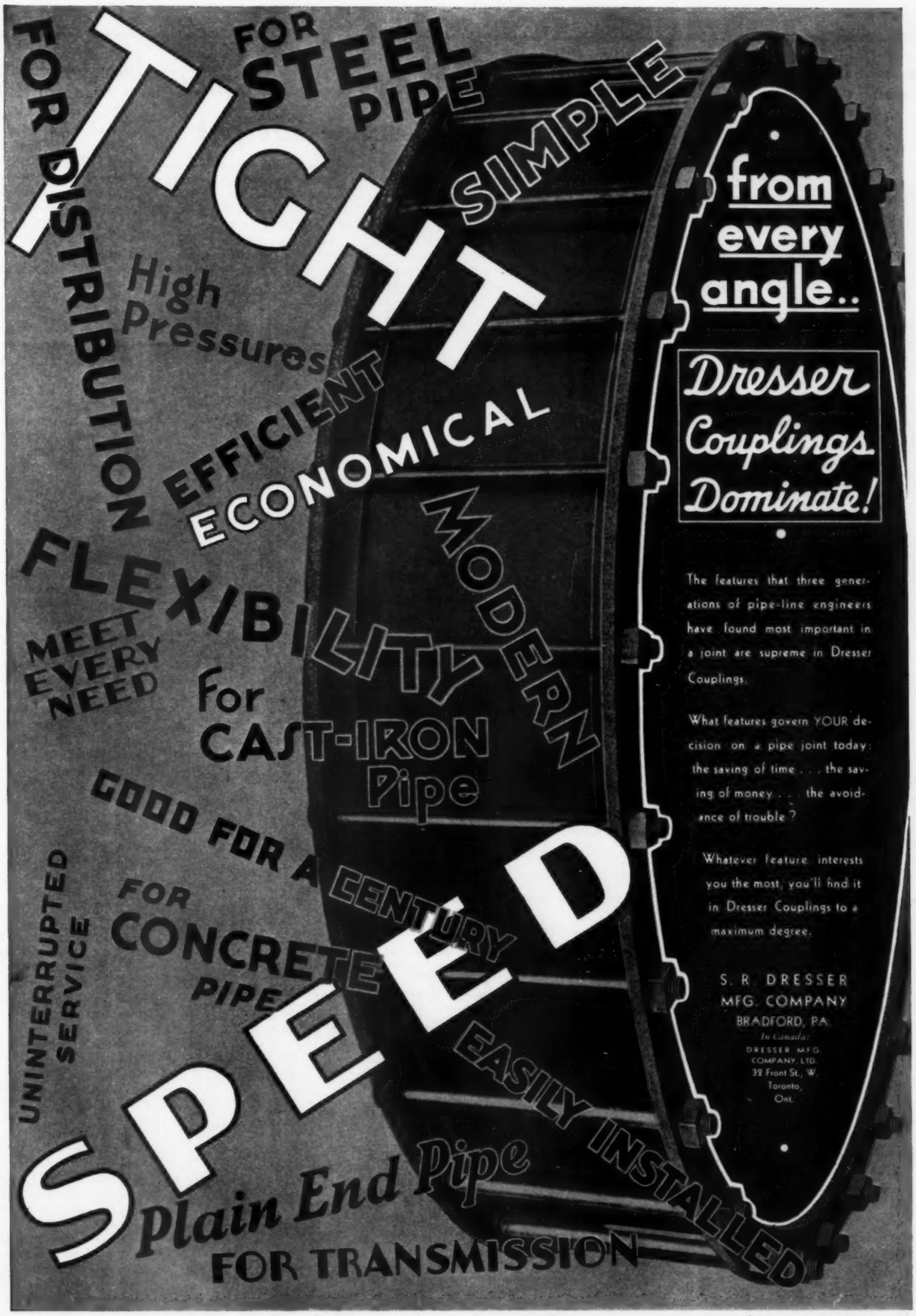
It is foolish, he adds, for executives or sales managers to believe that on an article of constant consumption they can build great volume, reduce overhead and sales expense and make a profit at the cut price, blindly assuming their competitors will allow their business to be taken away from them by such methods.

Business built on price can be torn down by price. Price can't be kept out of selling but he insists price selling can be taken out of merchandising. Price should not be weakened the moment a buyer reports, perhaps falsely, that a competitor is offering a lower price. The buyer for re-sale is cutting his own throat when he buys from the price cutting seller.

Nothing has contributed so much to demoralization as price merchandising. Mr. Nardin sums it up very effectively:

"A practice which when met by all competitors is beneficial to all is a sound merchandising practice. A practice which, when met by all is detrimental to all, is unsound and should never be adopted. Measured by that rule, our price concession, price cutting methods are obviously out."

He clinches his argument with "the illustration in the grocery distribution field where the most rapid volume builder is in bankruptcy for the fourth time in ten years."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NATURAL GASOLINE MANUFACTURE

Spiner Advanced in Shell Sales Promotion Division

L. H. Spiner, manager of the Shellane division of Shell Petroleum Corp., has been made assistant manager of sales promotion for the corporation it was announced today by L. van Eeghen, vice president.

L. H. SPINER

Mr. Spiner joined the Shell organization five years ago as a district manager in the Shellane division of the technical products department, subsequently being made sales manager and later manager. His merchandising plans and distributing methods have been widely copied in the liquefied gas industry, and his "selective sales" methods for rural communities are now being incorporated in gasoline and motor oil merchandising. He was recently elected one of the three members of the executive committe of the liquefied gas code committee.

EXPORTS OF NATURAL SLUMP

Shipments of natural gasoline for foreign consumption fell off in January to 30,237 bbls., practically all of which went to Canada. Approximately one-half of this volume was cleared through the Michigan federal offices. The detailed volume and value of natural gasoline exported in January compared with December follow:

Purchases of U. S. Natural Gasoline

	Jan. (bbls.)	Dec. (bbls)
France	2,682	.....
Canada	27,645	20,551
Neth. West Indies	.....	47,619
Total volume	30,327	68,170
Value	$62,805	$203,292

Custom District Through Which Cleared

	Jan. (bbls.)	Dec. (bbls)
St. Lawrence	492	.....
Buffalo	9,351	2,978
Sabine	2,682	.....
San Francisco	.....	47,619
Montana and Idaho	.....	591
Dakota	2,939	2,307
Michigan	14,863	14,482
Duluth and Superior	.....	193
Total volume	30,327	68,170

REMODEL EGASO REFINERY

The Smith Engineering Co. of Kansas City is remodeling the old plant of the Egnso Operating Co. in the Osage Field, Wyoming. It is being modernized and a new cracking unit will be installed. The plant was taken over recently by E. C. Winters of Kansas City, formerly with the White Eagle Refining Co.

Panhandle and East Texas Plants Show Large Increase in Gasoline Output

Despite a higher daily average production of natural gasoline during February manufacturers were able to show a slight reduction in the stocks of natural gasoline at their plants at the close of that month compared with the close of January, according to the Bureau of Mines.

Most interesting is the comparison of the production over the first two months of this year compared with that of the same two months of last year in the East Texas and Panhandle fields of Texas. In each instance a substantial gain is recorded. East Texas, although still a rather small factor in the total supply of natural is shown to have doubled its output in the past year. In the first two months of this year that field has produced 4,800,000 gallons. In the same months a year ago the total was 2,200,000 gallons.

In the Panhandle the volume increase is much greater and may be expected to continue to show a widening increase over the next two months due to the building of two important dry gas plants there. In the period in question the Panhandle production has grown from 25,600,000 gallons to 36,500,000 gallons, or an increase of close to 11,000,000 gallons for the two months. Over this year, the Panhandle is likely to produce between 80,000,000 and 100,000,000 gallons of natural gasoline over its yield for 1933.

Outside of Texas there is a general and natural decline in a majority of fields. Kettleman Hills continues to show a rather constant supply as may be expected due to the high degree of control exercised in the field while the Huntington Beach Field shows the only major increase among the many fields in the State. The Oklahoma City area accounts for a substantial increase due principally to the manner in which proration is being administered in the field rather than any increase in the quantity of gas available.

PRODUCTION AND STOCKS BY FIELDS
(Thousands of gallons)

	Natural gasoline: Production Feb., 1934	Production Jan., 1934	Production Jan.-Feb., 1934	Production Jan.-Feb., 1933	Stocks end of month Feb., 1934	Stocks end of month Jan., 1934	Blended motor Fuel February, 1934: Naphtha or Natural gasoline used	Naphtha or other oils used	Stocks end of month
Appalachian	6,200	5,900	12,100	12,400	5,293	3,910	227	59	242
Ill., Ky., Ind.	800	800	1,600	1,600	504	387	...	...	...
Oklahoma	28,900	31,400	60,300	54,200	18,605	21,537	34	23	22
Oklahoma City	8,600	9,000	17,600	12,900	4,489	3,739	...	...	...
Osage County	3,500	3,700	7,200	6,400	4,302	7,297	...	...	6
Seminole	6,800	7,700	14,500	14,900	2,770	2,336	2	...	...
Rest of State	10,000	11,000	21,000	20,000	7,044	7,665	32	23	16
Kansas	2,300	2,400	4,700	4,300	564	677	17	13	18
Texas	32,500	35,200	67,700	53,700	11,065	10,430	275	502	41
East Texas	2,500	2,300	4,800	2,200	233	187	243	458	13
North Texas	1,700	1,900	3,600	3,500	774	586	...	...	...
Panhandle	17,400	19,100	36,500	25,600	6,663	6,346	23	44	16
West Central	6,900	7,700	14,600	13,000	2,545	2,344	9	...	12
Rest of State	4,000	4,200	8,200	9,400	850	967	...	...	...
Louisiana	3,500	3,500	7,000	7,000	672	742	65	...	7
Arkansas	1,000	1,100	2,100	2,500	182	175	230	431	30
Rocky Mountain	4,600	4,700	9,300	9,200	1,243	1,270	3	13	5
California	37,100	42,000	79,100	82,700	2,994	2,551	...	...	...
Huntington Beach	2,700	2,900	5,600	2,700	....	....	...	...	...
Kettleman Hills	11,600	13,600	25,200	24,400	....	....	...	...	...
Long Beach	5,400	5,800	11,200	14,000	....	....	...	...	...
Santa Fe Springs	4,800	5,500	10,300	12,600	....	....	...	...	...
Ventura Avenue	3,400	3,800	7,200	6,900	....	....	...	...	...
Rest of State	9,200	10,400	19,600	21,100	....	....	...	...	...
Total	116,900	127,000	243,900	227,600	41,122	41,679	851	1,041	365
Dly. average	4,180	4,100	4,130	3,860	....	....	30	37	...
Total (thousands of bbls.)	2,783	3,024	5,807	5,419	979	992	20	25	9
Dly. average	99	98	98	92	....	....	1	1	...

PRODUCTION AND DISTRIBUTION OF NATURAL GASOLINE
(Thousands of barrels)

	February, 1934 Total	February, 1934 Dly. av.	January, 1934 Total	January, 1934 Dly. av.	Jan.-Feb., 1934	Jan.-Feb., 1933
Production	2,783	99	3,024	98	5,807	5,419
Decrease in all stocks	117	4	....	....	....	....
Total	2,900	103	3,024	98	5,807	5,419
Blended at refineries	1,822	65	*2,082	67	3,905	3,790
Blended at plants east of Calif.	20	1	22	1	42	13
Run through pipe lines in Calif.	117	4	139	4	256	232
Jobbers, exports, etc.	518	18	152	5	670	709
Increase in all stocks	....	....	247	8	130	194
Losses	423	15	*381	13	804	481
Total	2,900	103	3,024	98	5,807	5,419

*Revised.

PRODUCTION OF MOTOR FUEL
(Thousands of barrels)

	February, 1934 Total	February, 1934 Dly. av.	January, 1934 Total	January, 1934 Dly. av.	Jan.-Feb., 1934	Jan.-Feb., 1933
Refinery gasoline:						
Straightrun	15,465	552	*15,882	512	31,347	28,823
Cracked	12,793	457	14,657	473	27,450	25,339
Natural gasoline:						
Production	2,783	99	3,024	98	5,807	5,419
Deduct losses	423	15	*381	13	804	481
Benzol	132	5	130	4	262	183
Total motor fuel	30,750	1,098	33,312	1,074	64,062	59,283

*Revised.

Industry Finding Increased Use for Liquefied Gases

Describing the use of liquefied petroleum gases to drive internal combustion engines the Philgas Co., a subsidiary of the Phillips Petroleum Co., has issued Bulletin 38 in which the company says:

Liquefied petroleum gases have every desirable characteristic of gasoline when used in internal combustion engines, yet possess additional advantages obtainable in no other existing motor fuel. Very high antiknock ratings permit the use of high compression ratios, resulting in increased thermal efficiency, increased power output, and an attendant decrease in specific fuel consumption.

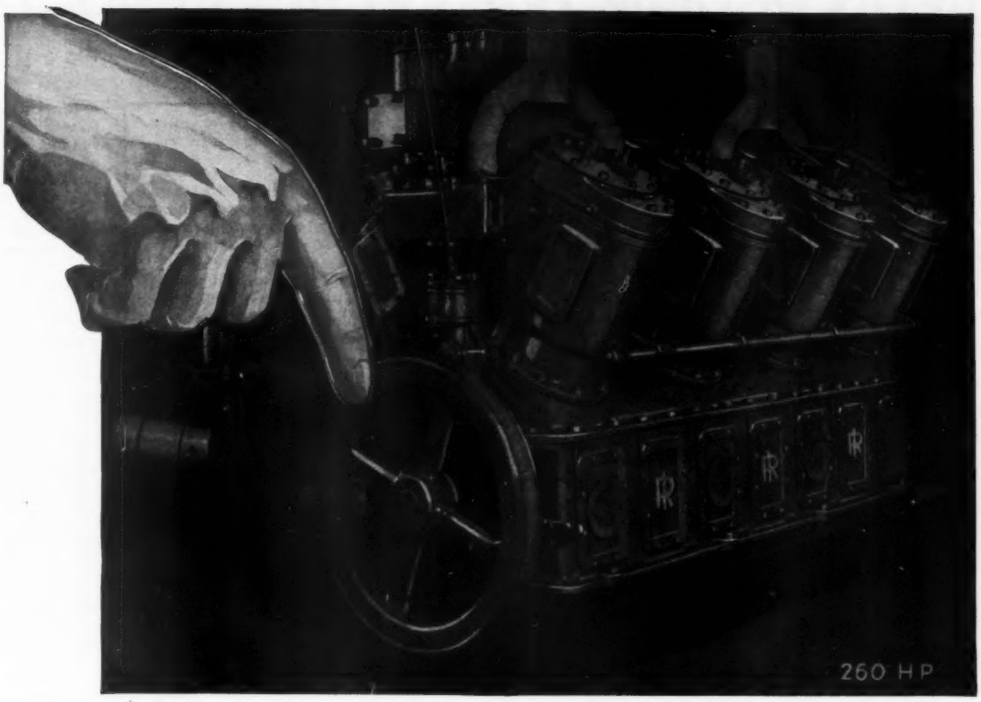
Propane and butane are the two principal liquefied petroleum gases commercially available today. Propane has an octane rating of 125 while that of butane is 93. They are members of the paraffin series of hydrocarbons—the same series of chemical compounds which make up the largest part of ordinary gasoline. They have the same appearance as ordinary gasoline—colorless liquids—but differ in that they are first obtained from gas and later liquefied to concentrate the thermal value for economical transportation and storage.

At the present time liquefied petroleum gases are being used extensively by several motor car manufacturers for block testing or "running-in" of all their engines. The liquefied gas is first vaporized, or allowed to gasify, and is then distributed in regular gas piping to individual gas mixtures attached to each engine; or through a central carburetor or mixing machine where the gas is proportioned with the proper amount of air for the type of combustion desired, then redistributed to the various engines on the test stands.

Liquefied petroleum gases are being used as fuels for large stationary engines, direct-connected to generators, by many public utility companies and oil companies.

In the many pump stations on one of the longest gasoline pipe lines, butane gas-fueled engines are used. These engines are direct-connected through step-up gears to high-speed, high-pressure, centrifugal pumps. Butane is periodically passed through this line, thus providing a means of replenishing the liquid butane storage at the various pump stations.

With the recent advent of the high-speed, stream-lined trains and high-speed rail cars, there is a possibility of even more efficiently utilizing the inherent advantages of these gases as fuel for power generating units. Propane is of particular interest to the operators of such equipment. The amount of fuel carried on board for the usual runs is small and may be easily carried in the form of liquid propane, as these trains and cars operate between fixed terminal points. Further, vaporization of the liquefied propane produces refrigeration which is available for air conditioning purposes. Propane gas also provides a convenient and economical fuel for heating the passenger section in cold weather and as a fuel for buffet stoves. In addition to the above advantages, the very high octane rating of propane, 125, provides increased horsepower output per pound of power plant, as well as low specific fuel consumption—an attractive fuel for rail cars, rail trains, and other high-speed transportation units, operating between fixed terminals. Butane may also be used for the same purposes, but does not possess all of the advantages of propane, the octane rating of butane being about 93.



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Installation costs are low. Units are shipped completely assembled, and can be quickly set up and put into operation.

V-type gas engine, 2, 4, 6, or 8 cylinders, gives great flexibility of speed and capacity. (60, 125, 190, or 260 hp.)

More than 95 per cent of the wearing parts are interchangeable among all sizes of units.

These are just a few of the reasons why you should know more about this new compressor. Ask for catalog No. 3065.

Ingersoll-Rand

11 Broadway, New York

Reports of East Texas Refinery Shutdowns Cause Excited Gasoline Market in Group 3 Area

By T. F. SMILEY

An epidemic of refinery shutdowns in the East Texas area started a rocketing gasoline market in the Oklahoma (Group 3) territory last Saturday. Prices still were climbing excitedly this week, and though no clear evidence of slowing up had appeared scepticism was expressed concerning their holding qualities. The low octane material commanded a full half cent more than it did a week earlier and the middle and high octanes had gained a quarter to three-eighths of a cent.

The suddenness with which a sellers' market turned into a buyers' was almost startling. The natural gasolines joined the refinery product in the race, and signs of stimulation were seen in other sections of the market. The sharp change in trading psychology was attributed generally to a feeling that the reported wholesale closing of East Texas plants foreshadowed elimination of hot oil operations there.

The shutdowns followed a series of injunctions granted against refiners accused of violating the recently enacted law giving the Texas State Railroad Commission supervision over refinery operations, but none of the shutdowns was ordered by the injunction and more than one-third of the plants which drew their fires were not subjects of injunctions at all.

Exaggeration Suspected

No official checkup on the number of East Texas plants closed or the reasons for closing them was available, and it was the belief of conservative observers who discount reports originating in that district that there had been exaggeration. It was declared by these observers that the number of plants supposed to be closed had been greatly overstated and that in many cases the shutdowns were simply for repairs or structural changes.

Refined Oil Market Barometer

A more cheerful tone pervaded the motor fuel market in most areas, although conditions were far from satisfactory and it was recognized that unless they were remedied promptly the oil refining industry would enter the season of heaviest consumption without prospects of reasonable profits. The slight improvement in the gasoline market was attributed to plant shutdowns in various areas and faint renewal of hope that the latest plans in that direction of stabilization might prove successful. Neutrals continued to occupy a place in the front line of market interest.

Mid-Continent—Gasoline strong, with prices higher. Naturals strong. Kerosene in demand with stocks low. Lubricants firm. Wax off.

East Coast—Gasoline unsettled. Wax easier. Kerosene, fuel oil, gas oils and distillates firm.

Gulf Coast—Gasoline prices lower. Other quotations unchanged and markets steady.

Pennsylvania—Gasolines up. Other products steady.

California—No changes in any refined products. Gasoline market weak.

Chicago—Gasoline stronger and more active. Kerosene strong and in demand. Industrial oils in firm market position.

But whether the reports were trustworthy or not, there could be no question as to their effect on the market, and since the shutdowns, whatever their extent, were entirely voluntary, the real reasons actuating the plant owners became a subject of discussion.

One reason offered was that the refiners decided it would be the part of wisdom to discontinue operations until the validity of the law requiring them to make reports to the Railroad Commission had been passed upon finally by the courts.

Move to Win Sympathy Seen

Another widely differing reason saw in the shutdowns a move designed to create sentiment favorable to East Texas operators regardless of law observance and against efforts to dry up the flow of hot oil. It was reasoned that if the plants would close for a few weeks gasoline prices would rise and consumers, more interested in their own pocketbooks than in the fortunes of the oil industry, would begin to clamor for a return of cheaper gasoline. Those offering this explanation were disposed to brush aside the broader questions involved with the comment that some of the large companies were themselves operating on crude the source of which would not bear close scrutiny.

Belief was expressed by some market students that the higher prices were likely to lure large volumes of gasoline from storage and that the better market so suddenly built up might easily crumble under the pressure of dumping.

In the natural gasoline division the large manufacturers were reported to be running their own output into storage and to be buying whatever was available from small plants. These latter, however, in view of the stronger market, manifested little disposition to sell, and the quantity of material purchasable was reported to be scarce. So while signs of high interest were plentiful, the actual volume of business was relatively small. The better prices for the naturals were attributed in large measure to the higher quotations for the refinery gasoline.

Comment was stirred by the scarcity and corresponding tightening in price of the product known in marketing parlance as "East Texas crap." This is a 36 to 40 gravity gas oil under 190 flash and under 160 endpoint, used largely for blending with other burning oils and also used without blending as a Diesel engine fuel in many municipal plants. The flashpoint of the "crap" sometimes is as low as 115 owing to the fact that appreciable percentages of kerosene and in some cases gasoline have been carried on to the gas oil as a result of imperfect fractionation. This product had been selling freely throughout the winter at 2⅜ cents, but this week it was hard to get at 2½ cents.

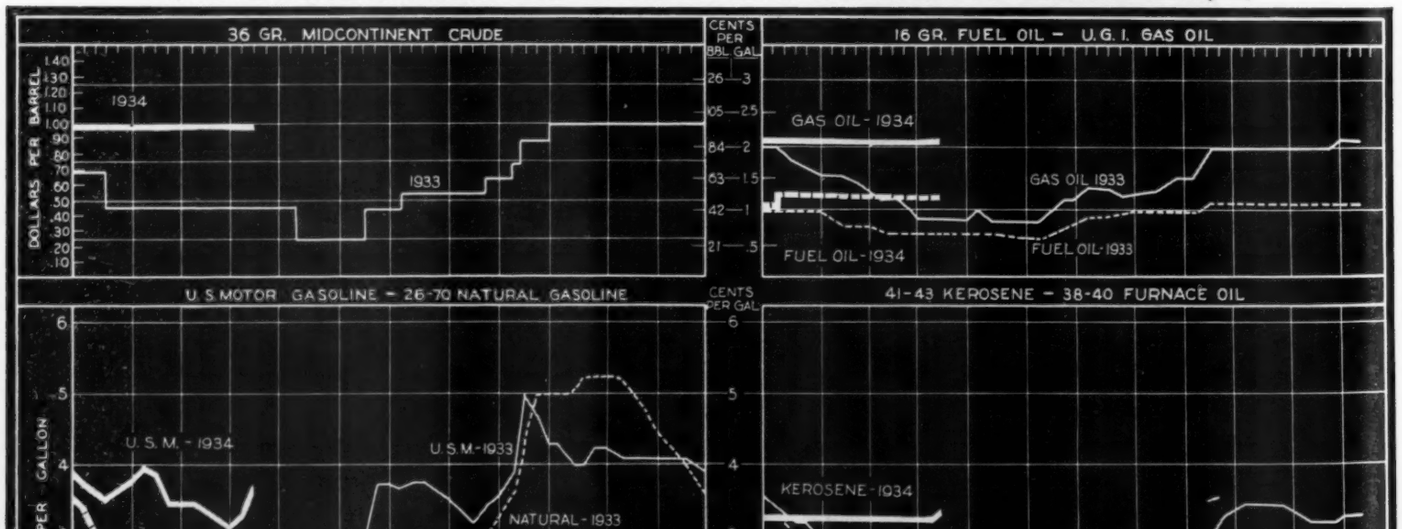
Kerosene Up

Kerosene was in demand at slightly higher prices and stocks were reported growing scarce. In some cases kerosene and tractor fuels were being sold at the same price.

The neutrals, which have provided a market feature recently by their unexpected accession of strength, maintained their vigor this week and although quotations had not been advanced, increases were reported as probable.

The demand for wax showed further easing and prices were shaded. Cylinder stocks and bright stocks were strong.

Representative Mid-Continent Quotations on Crude Oil and Refined Products Basis Oklahoma (Group 3)



Eastern Tank Wagon, Retail Markets Unsettled; Gulf Coast Material Is Quoted Under Low

By C. O. WILLSON
New York Bureau, The Oil and Gas Journal

NEW YORK, Apr. 9.—Price changes in East Coast refinery markets during the past week were of minor importance with uncertainty continuing to center around the probable action of the industry in regard to the curtailment of refinery operations for the purpose of improving a weak gasoline situation. So far as known the major refiners in this territory were holding to the tank car prices on the three main grades of gasoline which have been in effect for several weeks. At the same time open market material coming from the Gulf Coast was available at least one-fourth cent under the low of these quotations. Gasoline tank wagon and retail markets were unsettled.

Among the other products the only general price change applied to crude scale and refined wax. Quotations on these products both for export and domestic movement vary widely but representative quotations on new business indicated that the prices were from .2 to .4 cent per pound under the highs prevailing during February and March. At the same time at least two of the larger manufacturers who are sold up for April and part of May have not reduced their quotations.

Russian Wax

In this connection wax from Russian refineries is becoming more and more a factor in this market. Government data for the first two months of this year show that 12,592,000 pounds of wax were imported into this country, an increase of approximately 100 per cent over the same period for 1933. A substantial part of this imported wax comes from Russia. It also comes into active competition with products of plants in the United States in South American, Dutch West Indies and European markets. Some Russian bright stock and other grades of lubricants have been offered in markets close to the United States.

In the case of wax it is claimed that the products are not comparable as to specifications with the output of plants in the United States and there has been confusion as to prices. With less lemand in both export and domestic markets this Russian competition is more a factor than it was a few months ago when prices here were advancing steadily. Most of the Russian wax is sold as scale although the delivered product has met refined specifications in some cases. The asking prices recently have been lower than the American market.

Gasoline Market

So far as the gasoline market is concerned buyers and sellers appear to be marking time awaiting definite developments at Washington both in regard to spot sales and contracts. The latter part of last week there was a better feeling in the market based largely on the promise from Washington that some action would be taken immediately to take care of the present surplus situation in the case of gasoline. The announcement of the compromise plan explained elsewhere in this issue, on Friday was not received with any great enthusiasm in this territory due in part to the fact that action probably will be delayed and the gasoline market is in need of immediate aid. The plan does not follow the proposals of several large refiners in this territory who have suggested a voluntary arrangement which was to have immediate application. It is also not believed that it will be satisfactory to those supporting the P. and C. proposal. Those who are alarmed regarding the gasoline market are predicting extension of price cutting which will bring general reductions in all markets unless some remedial action is taken before the end of the month.

Government Reports

The February report of the Bureau of Mines shows the refinery operating situation in this territory and the entire country at the start of March and indicates what will have to be done to place gasoline markets on sounder basis. The government report for this territory is summarized in the following table:

EAST COAST REFINERY OPERATIONS
OUTPUT—FEBRUARY

	1934	1933
Crude oil to stills (dly.)	455,100	440,000
Gasoline	5,383,000	4,895,000
Kerosene	817,000	858,000
Gas oil and distillate	510,000	1,010,000
Residual fuel oil	3,601,000	3,570,000
Lubricants	476,000	506,000
Wax (pounds)	17,920,000	15,120,000
Coke (tons)	10,400	16,300

STOCKS—END OF MONTH

	1934	1933
Gasoline*	17,568,000	15,737,000
Kerosene	949,000	991,000
Gas oil and distillate	1,887,000	2,424,000
Residual fuel oils	3,540,000	4,309,000
Lubricants	2,275,000	2,759,000
Wax (pounds)	31,801,000	38,815,000
Coke (tons)	8,800	13,800

*At refineries and bulk terminals.

This table shows that East Coast refineries during February maintained their crude runs to stills at slightly higher levels than in January and about 3 per cent more than February last year. As a result of higher runs coupled with a reduced domestic demand due to unfavorable weather conditions, East Coast refiners added about 2,000,000 bbls. of gasoline to their stocks.

The oil administration at Washington has allocated the East Coast refiners a maximum production of 5,500,000 bbls. of gasoline for April. Assuming a yield of 42 per cent which was the average for the East Coast plants the first two months of this year, this means that runs to stills in April must not exceed an average of 436,000 bbls. daily or 20,000 bbls. a day less than in February.

April ordinarily is a month in which refinery operations are expanded in line with the increase in domestic demand for gasoline. Due to the overproduction during the winter months, it is assumed that an attempt will be made to restrict operations through April and May in all parts of the country which have contributed to the overproduction.

The situation in regard to products other than gasoline at eastern refineries is more favorable. As shown in the table, stocks of all products with the exception of gasoline are lower than they were a year ago. The situation in regard to fuel oil, gas oils and distillates appears especially strong and accounts for the advances made in these products during March. Refiners increased the output of these products over February of last year, but the demand has also increased and stocks were reduced during February.

Stocks of petroleum wax at East Coast refineries increased during February about 3,500,000 pounds for the second successive month. Previously there had been a steady decline in stocks at eastern plants and for the entire country over a period of several months. Refiners in this territory have reduced their production of coke, which is probably due to the improved market for residual fuel oils. They have also reduced their stocks approximately 40 per cent. A steady market has been developed in this territory for all grades of coke, distribution being handled by coal companies.

Prices

Prices on fuel oils, gas oils and distillates are unchanged from last week. Sellers are anxiously awaiting rulings which will give them some basis for making new contracts on these products. In the case of furnace oils, some contracts are being renewed on a basis of going tank car and tank wagon markets, but in general there is little new business being closed. As has been explained in these columns previously any substantial curtailment in crude runs to stills in this territory to take care of the gasoline situation will tend to create a shortage of the heavier products and force distrib-

(Continued on Page 70)

American Petroleum Institute Weekly Refinery Statistics

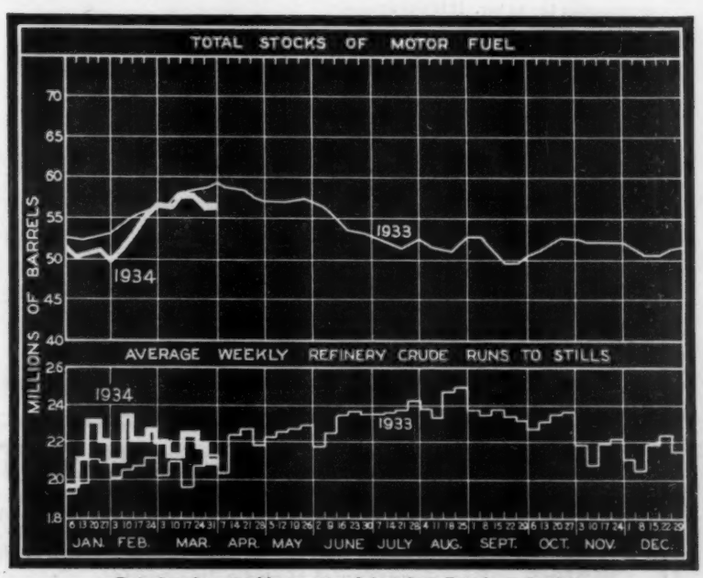
Figures below reported for week by American Petroleum Institute. (1) Per cent refinery capacity represented. (2) Daily average crude runs to stills. (3) Total motor fuel stocks. (4) Gas oil and fuel oil stocks. All figures in 42-gallon barrels.

Week Ending April 7, 1934, Compared to Week Ago

	Week Ending April 7, 1934				Week Ending March 31, 1934			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	430,000	.....	5,361,000	100.0	456,000	17,550,000	5,279,000
Appalachian	92.7	92,000	.....	751,000	92.7	88,000	1,832,000	714,000
Ind., Ill., Ky.	94.6	291,000	.....	2,862,000	94.6	284,000	9,637,000	2,828,000
Okla., Kans., Mo.	83.7	201,000	.....	2,768,000	83.7	195,000	5,914,000	2,739,000
Inland Texas	47.6	68,000	.....	1,625,000	47.6	68,000	1,172,000	1,697,000
Texas Gulf	97.4	415,000	.....	4,298,000	97.4	463,000	5,418,000	4,550,000
La. Gulf	96.4	116,000	.....	1,168,000	96.4	119,000	1,683,000	1,252,000
N. La. and Ark.	83.7	42,000	.....	490,000	83 7	45,000	341,000	584,000
Rocky Mtn.	66.7	36,000	.....	665,000	66.7	34,000	1,508,000	676,000
California	96.9	405,000	.....	83,350,000	96 9	351,000	12,043,000	84,502,000
Total U. S.	89.6	2,096,000	.....	103,338,000	89.6	2,103,000	57,098,000	104,821,000

Week Ending April 7, 1934, Compared to Year Ago

	Week Ending April 7, 1934				Week ending April 8, 1933			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
East Coast	100.0	430,000	.....	5,361,000	99.1	402,000	16,078,000	5,882,000
Appalachian	92.7	92,000	.....	751,000	95 0	64,000	2,005,000	861,000
Ind., Ill., Ky.	94.6	291,000	.....	2,862,000	97.5	296,000	8,801,000	3,460,000
Okla., Kans., Mo.	83.7	201,000	.....	2,768,000	84.9	198,000	5,462,000	2,957,000
Inland Texas	47.6	68,000	.....	1,625,000	56 4	78,000	1,671,000	2,132,000
Texas Gulf	97.4	415,000	.....	4,298,000	97.7	293,000	6,066,000	6,261,000
La. Gulf	96.4	116,000	.....	1,168,000	97.3	87,000	1,941,000	2,064,000
N. La. and Ark.	83.7	42,000	.....	490,000	85.5	39,000	386,000	655,000
Rocky Mtn.	66.7	36,000	.....	665,000	90.3	26,000	1,485,000	635,000
California	96.9	405,000	.....	83,350,000	94 6	430,000	14,545,000	98,387,000
Total U. S.	89.6	2,096,000	.....	103,338,000	91 6	2,013,000	58,440,000	123,294,000



Data based on weekly reports of American Petroleum Institute

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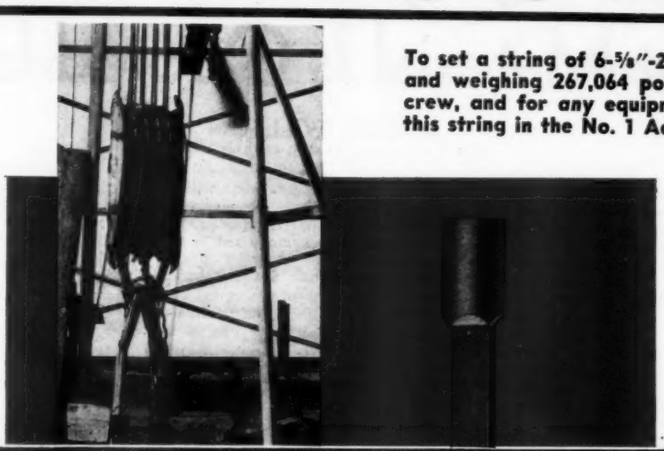
The BAASH-ROSS Roller Bearing Traveling Block (illustrated) is a 66 inch size, equipped with five 36 inch manganese steel sheaves. Modern, long-wearing qualities of BAASH-ROSS Roller Bearing Traveling Blocks and Crown Blocks are assured by protecting the main pin from wear and fatigue by a hardened and ground race ring which is keyed to the pin. All wear is thus confined to the roller bearing and race ring, which are individually lubricated by means of Alemite connections recessed in the end of the pin. Streamlined steel guard plates, recessed nuts, correct designing, and construction of the finest obtainable materials all combine to produce fast, smooth-operating blocks, with an ample safety factor to meet present day deep drilling requirements.



To set a string of 6-⅝"-26 pound casing 9,922 feet long, and weighing 267,064 pounds, is a "tough job" for any crew, and for any equipment. The successful setting of this string in the No. 1 Adak Noc Well in Caddo County, Oklahoma, is *proof of the experience and ability* of the Denver Producing & Refining Company's crew—the choice of a BAASH-ROSS Traveling Block and a BAASH-ROSS Blowout Preventer is *proof of their good judgment.*

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A gradual taper from the square of the kelly to the upper box provides maximum strength at this vital point, where failures often occur from metal fatigue and crystallization. The solid upset box and pin eliminates two subs. Sufficient stock is left at either end for re-cutting the threads four or five times.

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The BAASH-ROSS BLOWOUT PREVENTER operates by packing off around the drill pipe or tubing before the mud can be expelled from the hole by gas pressure. A steel body is bored with an internal tapered shoulder to receive the packing assembly. The top of this body is externally threaded to receive the lip ring for holding and tightening the packing.

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Correctly designed to enable the Kelly to pass through the bushing without binding, to aid in controlling the feed of the bit, and in maintaining steady, uniform pressure, so desirable in coring, fishing and in many other operations.

The body is made of a one-piece steel casting, properly heat treated. The roller assembly contains forged alloy steel rollers and hardened pins, and is equipped with Alemite fittings for fast, simple lubrication. Roller assemblies are easily inserted or removed by releasing two bolts and unscrewing the cover. It is not necessary to break any subs to install bushings, as there is ample clearance through body and cover.

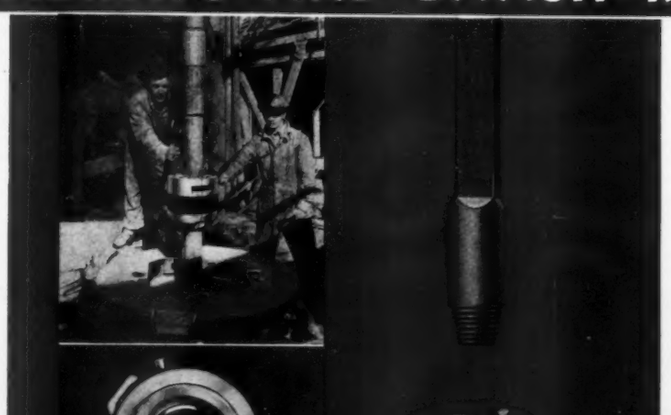
This Roller Type Kelly Bushing insures free downward movement of the kelly, and eliminates:—

(a) unnecessary wear on the table and drive bearings, which must carry all the weight of the entire string if the kelly binds in the bushing;

(b) sudden strains, shocks and overloads on wire lines and other equipment when the kelly suddenly releases;

(c) twist-offs resulting from the bit dropping and "digging-in" after being momentarily held off bottom;

(d) an uncontrolled, uneven feed of the bit, core barrel or fishing tools.



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Estimated Crude Runs to Stills in Mid-Continent Indicate Falling Off From March Operations

By T. F. SMILEY

Refiners in the Mid-Continent territory will run 458,220 bbls. of crude to stills daily in April according to schedules made out for the month. This is a drop of 7,460 bbls. from the March schedules, which called for 465,680 bbls. daily, but it is an increase of 17,220 bbls. over the daily schedules for April, 1933, thus preserving a record of increases each month over the corresponding month of the previous year which has been maintained since March, 1933.

Estimates of April refinery runs in Kansas are 6,240 bbls. lower than were those for March; Oklahoma, 5,975 bbls. lower; North Central Texas 4,115 bbls. lower; and North Louisiana 2,100 bbls. lower. East Texas schedules, however, aggregate 5,800 bbls. more than those for March and the West Texas and Panhandle area 4,200 bbls. more.

Beginning with March, 1933, each month in that year recorded an advance in the Mid-Continent refinery schedules over the schedules for the corresponding month in 1932, and the first four months of 1934 have kept the record of advances over the preceding year unbroken.

Gasoline Consumption

Examination of the records for the last four years reveals interesting facts relating to the course of gasoline consumption as affected by the disturbed industrial conditions prevailing throughout that period. The business demoralization which began in the fall of 1929 showed little effect on refinery activity till May, 1930. Up to that time Mid-Continent crude runs to stills recorded an advance each month over the corresponding month of 1929. There was a drop of only 3,200 bbls. in the daily refinery runs for May, 1930, as compared with those of May, 1929, but in June the recession was 10,780 bbls. The gap widened steadily each month until in December the 1930 runs were only 478,360 bbls. daily, contrasted with 540,630 bbls. in December, 1929, a drop of 62,270 bbls.

The decline, keeping step with the shrinkage in business generally, continued in 1931, comparing each month's runs with those of 1930, but a sudden jump in June brought the 1930 and 1931 figures close together. A spectacular rise in July schedules put 1931 ahead with 588,840 bbls. daily as compared with 548,475 bbls. in the same month of 1930.

August and September made similar gains over 1930, but 1931's ascent came to an abrupt end in October, when the daily schedules dropped to 472,190 bbls., a falling off of 46,610 bbls. as compared with the 518,800 bbls. scheduled for that month in 1930. Investigation reveals that the flashy midsummer spurt in refinery runs was not caused by any sudden and unexpected increase in consumption, but by cheap crude. With 25 cents a barrel quoted in July, 1931, refiners bought until their storage facilities were overtaxed.

The declining trend, as indicated by comparison with the preceding year's figures for the corresponding month, thus resumed in October, 1931, continued without a break till March, 1933, when the long-receding tide was turned and gains over the preceding year took the place of losses.

While advances over the 1933 figures are shown as noted, it is of significance that the April schedules for this year show a falling off from the runs which were scheduled for last month. This is a direct reversal of what usually takes place. This is the time of the year when refinery runs should be expected to move upward as part of the preparation for the active motoring season just ahead. In 1933 the scheduled runs in the Mid-Continent territory rose from 423,445 bbls. in March to 441,000 in April; in 1932, from 401,155 bbls. in March to 419,750 in April; in 1931, from 449,634 bbls. in March to 497,391 in April, and so on through the years past.

Demoralized Market Blamed

The falling off in the refinery runs scheduled for April is probably to be accounted for by the demoralized condition of the gasoline market which has prevailed for months. Jobber buying is

(Continued on Next Page)

Mid-Continent Refinery Operations

Average Daily Crude Runs (Barrels)

(Based on estimates compiled first of each month by The Oil and Gas Journal)

	1929	1930	1931	1932	1933	1934
January	508,550	535,460	478,795	405,910	399,405	448,360
February	506,800	519,355	470,125	411,280	407,125	456,619
March	514,950	531,500	449,634	401,155	423,445	465,680
April	530,530	555,250	497,391	419,750	441,000	458,220
May	577,500	574,300	510,540	436,160	470,460	.....
June	583,030	572,250	567,915	440,765	479,987	.....
July	565,800	548,475	588,840	433,255	525,845	.....
August	555,250	526,400	590,545	427,710	518,510	.....
September	552,300	498,710	588,105	430,430	526,749	.....
October	544,720	518,800	472,190	401,995	495,756	.....
November	545,473	506,700	480,440	408,180	481,335	.....
December	540,630	478,360	456,525	416,275	434,275	.....

Operations by Refinery Districts

	April 1 dly. crude capacity	April dly. crude runs	March dly. crude runs	April daily decrease
Arkansas	37,550	20,650	20,200	*450
East Texas	191,200	90,270	84,470	*5,800
Kansas	185,650	87,350	93,590	6,240
North Central Texas	105,900	36,025	40,140	4,115
North Louisiana	41,750	24,400	26,500	2,100
Oklahoma	297,300	136,420	142,395	5,975
Southwest Texas	26,400	13,060	12,540	*520
West Texas and Panhandle	102,475	50,045	45,845	*4,200
Total	988,225	458,220	465,680	7,460

*Increase.

OKLAHOMA

Company and location—	Daily capacity	Aver. daily runs— April	March
Anderson-Prichard Oil Corp., Cyril	6,000	4,000	4,000
Altitude Petroleum Corp. (J. H. Peacock Refining Co.), Oklahoma City	3,000	300	300
Associated Petroleum Corp., Allen	8,000	(*)	(*)
Barnsdall Refineries, Inc., Barnsdall	6,000	3,000	3,000
Barnsdall Refineries, Inc., Okmulgee	10,000	3,500	4,000
Bell Oil & Gas Co., Grandfield	4,500	2,200	2,200
Black Gold Refining Co., Oklahoma City	2,500	800	1,500
Century Petroleum Corp., Oklahoma City	2,500	(*)	(*)
Champlin Refining Co., Enid	16,000	6,000	6,000
Columbia Oil Corp., Oklahoma City	3,500	(*)	(*)
Continental Oil Co., Ponca City	30,000	17,000	17,500
Crescent Refining Co., Holdenville	1,000	(*)	(*)
Cushing Refining & Gasoline Co., Blackwell	1,700	1,500	1,500
Cushing Refining & Gasoline Co., Cushing	4,500	2,200	2,250
Deep Rock Oil Corp., Cushing	10,000	9,000	9,000
Eason Oil Co., Enid	5,000	3,000	2,500
Empire Oil & Refining Co., Okmulgee	4,000	1,850	3,000
Empire Oil & Refining Co., Ponca City	12,000	7,000	7,000
Gem Refining Co., Oklahoma City	1,000	(*)	(*)
Globe Oil & Refining Co., Blackwell	7,500	6,000	6,000
Government Refining Co., No. 1, Oklahoma City	1,000	(*)	(*)
Government Refining Co., No. 2, Seminole	800	800	800
Government Refining Co., No. 3	3,500	850	850
Hanger Refining Co., Oklahoma City	1,000	200	250
Johnson Oil Refining Co., Cleveland	6,000	3,400	3,750
Major Petroleum Products Co., Oklahoma City	2,000	600	500
Marathon Oil Co., Bristow	5,000	2,300	2,300
Mid-Continent Petroleum Corp., West Tulsa	40,000	18,000	18,000
Oklahoma City Refining Co., Oklahoma City	2,500	(*)	(*)
Phillips Petroleum Co., Okmulgee	6,000	4,500	4,000
Producers Oil Co., Bristow	2,500	(*)	1,000
Producers & Refiners Corp., West Tulsa	6,000	3,000	3,000
Pure Oil Co., Muskogee	9,000	6,000	6,000
Rock Island Refining Co., Beckett	6,000	3,200	3,200
Sinclair Refining Co., Sand Springs	8,000	2,400	2,400
Sooner State Refining Co., Oklahoma City	300	(*)	45
Sun Oil Co., Yale	5,000	2,000	2,000
Sunray Oil Co. (C. E. Wright, receiver), Allen	7,000	2,000	2,000
Texas Co., West Tulsa	15,000	8,600	8,600
Texas Pacific Coal & Oil Co., Wynnewood	3,000	600	1,000
Tide Water Oil Co., Drumright	15,000	8,000	7,000
Triangle Producing & Refining Co., Oklahoma City	1,000	520	600
Wilcox Oil & Gas Co., Bristow	5,000	(*)	3,000
Wirt Franklin Petroleum Corp., Ardmore	4,000	1,800	2,000
Yale Oil Corp., Yale	2,000	300	350
York Refining Co., Oklahoma City	2,000	(*)	(*)
Total	297,300	136,420	142,395

*Shut down.

KANSAS

Company and location—	Daily capacity	Aver. daily runs— April	March
Altitude Petroleum Corp., Chanute	5,000	(†)	(†)
Altitude Petroleum Corp., Kansas City, Mo.	3,000	200	300
Barnsdall Refineries, Inc., Wichita	4,000	3,000	1,800
Derby Oil Co., Wichita	8,000	4,500	4,500
Dickey Refining Co., McPherson	5,000	800	800
Eldorado Refining Co., Eldorado	5,000	2,800	2,700
Falcon Refining Co., Inc., Great Bend	700	550	400
Globe Oil & Refining Co., McPherson	10,000	7,200	7,200
Golden Rule Refining Co., Wichita	1,500	700	700
Kanotex Refining Co., Arkansas City	12,000	4,500	4,500
Kansas Gas & Gasoline Co., Winfield	500	50	50
Kreuger Refining Co., Laton	150	50	50
National Refining Co., Coffeyville	6,500	4,500	4,500
Petroleum Products Co., Chanute	700	400	240
Phillips Petroleum Co., Kansas City	15,000	8,500	8,250
Security Petroleum Co., Chase	3,100	100	100
Shell Petroleum Corp., Arkansas City	20,000	12,000	12,000
Sinclair Refining Co., Coffeyville	12,000	(*)	7,500
Sinclair Refining Co., Argentine	9,500	4,500	4,500
Skelly Oil Co., Eldorado	23,000	12,500	13,000
Standard Oil Co. of Kansas, Neodesha	20,000	5,000	5,000
United Oil & Refining Co., Hutchinson	1,500	(*)	(*)
Vickers Petroleum Co., Potwin	3,500	2,500	2,500
White Eagle Refining Co., Augusta	16,000	13,000	13,000
Total	185,650	87,350	93,590

*Shut down. †Operating cracking unit, using gas oil.

SOUTHWEST TEXAS

Company and location—	Daily capacity	Aver. daily runs— April	March
Amsco Refining Co., Mirando City	2,500	800	800
Bee Oil & Refining Co., Pettus	1,000	100	125
Capital Refining Co., Luling	2,500	(*)	(*)
Chapa Refining Co., Laredo	100	50	50
Humble Oil & Refining Co., San Antonio	5,000	1,350	1,200
Magnolia Petroleum Co., Luling	7,000	5,200	5,200
Phoenix Refining Co., Pettus	1,000	570	350
Phoenix Refining Co., San Antonio	500	350	350
Pioneer Oil & Refining Co., Somerset	1,500	1,000	1,000
Price Refining Co., San Antonio	500	65	65
Texas Co., San Antonio	3,000	3,000	3,000
Rado Refining & Producing Co., McAllen	300	150	...
Texas Petroleum Products Co., Somerset	1,500	425	400
Total	26,400	13,060	12,540

*Shut down.

Mid-Continent Crude Runs to Stills Indicate Falling Off

(Continued from Preceding Page)

of the day-to-day kind largely because of fear that the discouragingly low prices for motor fuel may go still lower.

The shutting down of the Wilcox Oil & Gas Co.'s plant in Bristow was the biggest factor in reducing the Oklahoma schedules for April. This refinery, a 5,000-bbl. one, was running about 3,000 bbls. daily till it closed. The future of the plant has not been decided yet, it is reported.

Increases by several refineries made up the rise of 4,200 bbls. in the daily schedules for the West Texas and Panhandle region. J. N. Jordan, J. C. Hooper and Winfield Holbrook have organized the Plainview Refining Co., which is building a 500-bbl. skimming plant on the Fort Worth & Denver Railroad at Plainview in the Panhandle district. A 250-bbl. skimimng plant is being constructed by the Lubbock Refining Co. at Lubbock, in West Texas. Equipment formerly owned by the Humble Oil & Refining Co. at Breckenridge is being used in the plant, which is on the Santa Fe Railroad. Crude on which the plant will operate will be purchased from the Southern Oil Corp. of America's leases in the Boren Pool, Garza County. E. A. Patterson is said to be the prime mover in the project.

The Gas Center plant of the Louisiana Oil Refining Corp., built near Shreveport, La., 18 years ago, is to be dismantled and transferred to Bossier City. The Gas Center plant has been used as a topping plant, the final refining being done at the Bossier City plant. Ralph B. Pierce is in charge of the company's refining operations.

The Kiltex Refining Co. has started operating its 500-bbl. plant in the Kilgore area, East Texas, and Albert Knight, formerly with the Texas Railroad Commission, is building a small refinery on the Marine Oil Corp.'s Bean lease in the same area. The Roco Oil Co. is constructing a tube still addition to its boiler-type topping plant at Kilgore. The Friars Switch Topping & Refining Co. is putting up a small plant at Friars Switch in Rusk County. T. J. Mullin and others have organized the Model Refining Co., which is constructing a small skimming plant on the Magnolia Petroleum Co.'s lease at Reed Switch, southwest of Kilgore.

EAST TEXAS

Company and location—	Daily capacity	Aver. daily runs— April	March
Arpana Refining Co., Arp	4,000	3,550	3,750
Arrow Refining & Producing Co., Overton	4,500	3,000	4,000
Beacon Oil & Refining Co., Henderson	4,500	1,200	250
Canyon Refining Co., Kilgore	800	250	700
Carnation Refining Corp., Gladewater	1,000	750	2 300
Century Refining Co., Friars Switch	2,000	1,800	1,200
Chief Refining Co., Gladewater	1,500	700	700
Culver Refining Co., Gladewater	400	300	...
Danciger Refineries, Inc., Longview	10,000	(*)	(*)
Davenport Refining Co., Gladewater	500	450	...
Duckworth & Chandler Refining Co., Gladewater	1,000	525	350
Dutch Rose Refining Co., Gladewater	750	500	600
Eagle Refining Co., Gladewater	500	400	...
E. & P. Refining Co., Kilgore	200	15	125
East Texas Refined Products Co., Kilgore	700	550	500
East Texas Refining Co., Longview	10,000	6,300	7,500
Foshee Refining Co., Gladewater	1,500	1,250	1,200
Gladetex Refining Co., Gladewater	1,000	400	900
Gilliland Refining Co., Gladewater	1,500	1,350	1,250
Gilmer Refining Co., Gilmer	500	(*)	(*)
Godlin Refining Co., Gladewater	850	600	750
Goodson-Gentry Refining Co., Gladewater	1,200	650	600
Hanover Refining Co., Kilgore	1,000	900	750
Hawk Refining Co., Gladewater	800	650	500
Henderson Refining Co., Henderson	12,000	(*)	(*)
Humble Oil & Refining Co., Neches	5,000	250	200
Johnson Refining Co., Kilgore	1,000	800	800
Johnsonville Refining Co., Omega	200	(*)	50
Kent Refining Co., Angus	4,000	(*)	(*)
Keystone Refining Co., Gladewater	1,000	975	850
Kilgore Refining Co., Kilgore	3,000	2,000	2,325
Kil-Tex Refining Co.	500	450	...
Lake Refining Co., Gladewater	1,700	1,500	1,650
La Pren Refining Co., Kilgore	1,500	1,335	1,350
Lindsey Refining Co., Gladewater	2,500	2,000	150
Locke Refining Co., No. 1, Gladewater	1,500	1,100	1,500
Locke Refining Co., No. 2, Gladewater	1,500	1,475	1,500
Lotus Refining Co., Gladewater	1,500	1,050	1,345
Magnolia Petroleum Co., Corsicana	5,000	2,500	2,500
Master Petroleum Co., Waco	1,000	400	400
Minerva Refining Co., Minerva	2,000	250	(*)
O. K. Refining Co., Kilgore	1,000	(*)	(*)
Oil Refineries, Inc., Overton	4,000	2,500	3,500
Oriental Oil Co., Dallas	5,000	(*)	1,000
Overton Refining Co., Overton	3,500	2,000	2,400
Owl Refining Co., Kilgore	1,800	1,300	1,600
Owl Refining Co., Arp	1,500	1,300	1,500
Panama Refining Co., Kilgore	2,500	2,200	1,000
Pennant Refining Co., Kilgore	1,000	850	700
Phoenix Refining Co., Inc., Dallas	1,000	500	500
Pine Refining Co., Camps Switch	2,500	375	250
Producers & Refiners Corp., Reeds Switch	2,000	1,000	...
Recia Refining Co., Turnerstown	200	(*)	(*)
Roco Refining Co., Kilgore	1,200	850	600
Rusk Oil & Refining Co., Overton	3,000	1,145	1,100
Sandy Refining Co., Big Sandy	1,000	500	650
Simms Oil Co., West Dallas	4,000	(*)	(*)
Sinclair Refining Co., Camps Switch	5,000	1,500	1,500
Solar Refining Co., Overton	3,000	2,050	2,400
Southern Refining Co., Reeds Switch	2,500	1,550	1,100
Southport Refining Co., Kilgore	2,500	2,500	2,000
Supreme Refining Co., Gladewater	1,000	850	600
Taylor Refining Co., Tyler	15,000	850	2,200
Texanna Refining Co., Kilgore	200	100	...
Texas Co., Dallas	16,000	9,000	9,000
Texas Oil Products Co., Gladewater	2,000	800	800
Texas Refining Co., No. 1, Kilgore	1,000	785	480
Trico Refining Co., Turnerstown	200	(*)	(*)
Trinity Refining Co., Kilgore	2,000	1,600	1,650
Trio Refining Co., Arp	1,000	875	850
Tyler Refining Co., Arp	2,000	1,475	1,600
Union Refining Co., Camps Switch	3,000	1,375	1,200
Unit Refining Co., Kilgore	200	185	100
Upshur Refining Co., Gladewater	1,000	410	600
Utah Refining Co., Kilgore	2,000	1,450	50
Wichita Refining Co., Gladewater	750	120	125
Total	191,200	90,270	84,470

*Shut down.

NORTH LOUISIANA

Company and location—	Daily capacity	Aver. daily runs— April	March
Bayou State Refining Co., Hosston	750	200	(*)
Cedar Grove Refining Co., Shreveport	1,000	(*)	1,000
Louisiana Oil Refining Co., Shreveport, Bossier	19,000	17,500	17,500
Shreveport Refineries, Inc., Shreveport	500	200	.....
Spartan Refining Co., Shreveport	16,000	4,500	6,000
Stanolind Oil & Gas Co., Vivian	3,500	2,000	2,000
Texas Co., Shreveport	7,000	(*)	(*)
Total	41,750	24,400	26,500

*Shut down.

ARKANSAS

Company and location—	Daily capacity	Aver. daily runs— April	March
Berry Asphalt Co., Waterloo	2,000	500	(*)
Henry H. Cross Co., Smackover	6,000	3,000	3,000
Lion Oil Refining Co., El Dorado	12,000	6,500	6,500
Macmillan Petroleum Products Co., Norphlet	2,300	1,800	1,700
Ouachita Valley Refining Co., El Dorado	1,500	1,200	1,200
Root Refining Co., El Dorado	10,000	5,000	5,000
Simms Oil Co., Smackover	3,000	2,400	2,500
Stephens Refining Co., Stephens	750	250	300
Total	37,550	20,650	20,200

*Shut down.

WEST TEXAS AND PANHANDLE

Company and location—	Daily capacity	Aver. daily runs— April	March
Active Oil Corp., Arno	1,500	(*)	(*)
Aero Refining Co., Pecos	225	15	15
Coltex Refining Co., Colorado	10,000	7,000	5,500
Concho Refining Co., San Angelo	250	75	75
Cosden Oil Co., Big Spring	12,500	6,000	5,000
Danciger Refineries, Inc., Pampa	6,500	6,000	6,000
Howard County Refining Co., Big Spring	1,500	300	300
McNutt Refining Co., El Paso	2,000	580	580
Panhandle Refining Co., Kings Mill	2,000	1,000	1,000
Paramount Refining Co., San Angelo	2,000	225	225
Pasotex Petroleum Co., El Paso	14,000	4,000	4,000
Phillips Petroleum Co., Borger	30,000	20,000	17,500
Shamrock Oil & Gas Co., Sunray	2,000	1,000	1,800
Shamrock Oil & Gas Co., Meldavis	1,000	(*)	(*)
Sinclair Refining Co., El Paso	2,500	800	500
Texas Co., El Paso	2,000	400	400
Texas Co., Amarillo	4,000	2,500	2,500
West Texas Refining Co., Pecos City	6,000	(*)	(*)
Wickett Petroleum Co., Wickett	2,500	150	150
Total	102,475	50,045	45,845

*Shut down.

NORTH CENTRAL TEXAS

Company and location—	Daily capacity	Aver. daily runs— April	March
All State Refining Co., Thrall	2,300	(*)	200
Archer Refining Co., Megargel	1,500	300	300
Atlantic, Pacific & Gulf Refining Co., Wichita Falls	5,000	(†)	500
Baird Refining Co., Baird	1,400	1,275	1,100
Canyon Oil & Gas Co., Inc., The, Cisco	500	150	150
Continental Oil Co., Wichita Falls	6,000	4,000	4,000
Empire Oil & Refining Co., Gainesville	5,000	2,350	3,000
Exchange Petroleum Corp., Albany	500	275	200
Falls Refining Co., Wichita Falls	2,000	500	240
Gratex Refining Co., Graham	500	95	100
Gulf Refining Co., Fort Worth	10,000	4,500	5,000
Gulf Refining Co., Sweetwater	5,000	4,000	5,000
Haskell Oil Refining Corp., Breckenridge	200	(*)	100
Jacksboro Refining Co., Jacksboro	50	10	10
LaSalle Petroleum Co., Burkburnett	3,500	200	300
Magnolia Petroleum Co., Fort Worth, No. 1	12,000	5,000	5,000
Magnolia Petroleum Co., Fort Worth, No. 2	6,000	(*)	(*)
Marathon Oil Co., Fort Worth	5,000	3,000	4,000
Moutray Refining Co., Hawley	600	135	150
Muenster Refining Co., Muenster	300	100	100
New Deal Refining Co., Abilene	300	275	275
Nolting Refining Co., Sweetwater	1,000	220	325
Olney Oil & Refining Co., Olney	3,000	1,850	1,600
Omega Refining Co., Brownwood	200	135	65
Panhandle Refining Co., Wichita Falls	5,000	(*)	2,500
Paragon Refining Co., Lueders	400	175	200
Pentex Refining Co., Echo	400	(*)	(*)
Pilot Point Refining Co., Pilot Point	500	100	100
Sinclair Refining Co., Fort Worth	5,000	1,800	1,800
Southtex Refining Co., Trent	250	215	225
Southland Refining Co., Olney	1,000	(*)	(*)
Star Refining & Producing Co., Fort Worth	1,000	700	500
Starlight Refining Co., Inc., Hatchel	300	120	175
Superior Refining Co., Tiffin	800	150	150
Taylor Refining Co., Taylor	6,000	450	350
Taxman Refining Co., Wichita Falls	3,000	1,000	(*)
Texas Pacific Coal & Oil Co., Fort Worth	3,000	2,000	2,000
Texas Pacific Coal & Oil Co., Caddo	1,000	600	600
Tucker Refining Co., Wichita Falls	200	125	100
Waggoner Refining Co., Electra	6,000	(*)	(*)
Watt Refining Co., Brownwood	200	130	130
Total	105,900	36,025	40,140

*Shut down. †Cracking only.

Government Data Point to Remarkable Increase

(Continued from Page 23)

the demand for wax improved and stocks were depleted rapidly. Prices advanced at that time to the most favorable levels in several years. It is apparent that the higher prices have tended to reduce the demand, particularly in the case of exports as shown in table. At the same time, production has picked up so that the output of wax the first two months exceeded the demand by 14,958,000 pounds and that amount was added to storage.

Production Increased

Unfortunately from the standpoint of current markets the industry as a unit has not benefited as it should from this increase in demand for its products. As shown in the table, crude oil supply (domestic production plus imports) the first two months increased even more rapidly than the demand when compared with the same period in 1933. However the supply was less than the demand and 3,753,000 bbls. were taken from storage the first two months of this year. Imports of crude oil increased slightly and averaged approximately 100,000 bbls.

In the refinery end, gasoline was the only product which failed to show a favorable situation in regard to supply and demand. With no imports to contend with, refiners increased their gasoline production 8 per cent over the same period last year and this more than offset the increase in total demand of 7.6 per cent so that the industry from a storage standpoint on February 28 was not in as strong a position as it was a year ago. This reflects the tendency of the industry to nullify the market advantage of an improved demand by increases in production. The output of kerosene and lubricating oil also increased materially but these gains were more than offset by the large increase in demand.

In regard to inventories stocks of crude oil and total all oils were greater on February 28 than on the same date in 1933. This was largely due to the large increases in the second quarter of last year. Stocks of fuel oil and gas oil were 10.6 per cent less with a reduction of approximately 12,000,000 bbls. the first two months of this year. Despite the gain the first two months, stocks of petroleum wax on February 28 were 43.3 per cent less than February 28, 1933.

Crude runs to stills averaged 2,338,000 bbls. the first 59 days of this year, an increase of 184,000 bbls. daily when compared with the 2,154,000-bbl. average for the same period in 1933.

DOCTOR EGLOFF LECTURES

Dr. G. Egloff, Universal Oil Products Co., Chicago, on April 3, started a course of lectures at the University of Chicago on thermal decomposition, polymerization, synthesis and catalytic treatment of hydrocarbons.

Industry Must Neither Be Monopolized Nor Raided

(Continued from Page 24)

ucts refined from this crude, and in turn the marketer cannot pay the refiner more for his refined product than he is able to realize after he has sold the refined product to the ultimate consumer, so it is impossible for any one of the branches of the industry to ignore the consequence of disturbance in any other branch of the industry. This is more emphatic in the case of the producer than with any other. While price wars and production campaigns may be carried on by the producer, without embarrassing the marketer—in fact, it may enable him to increase his profit—any disturbance in the marketing or refining branch of the industry must be reflected back to the producer, so of all people in the industry the producer is most vitally concerned with an orderly, stabilized program throughout the industry, and is greatly concerned with the success of the code or any other program that attempts to insure orderly refining and marketing of the products made from crude petroleum.

The Pennsylvania oil industry has passed the three-score-years-and-ten of life. In that ripe age it has learned wisdom. Blessed with a grade of petroleum possessing most unusual qualities, it has conserved its assets and is today adding to the wealth of the nation, manitaining employment and supporting the purchasing power of hosts of people, because it has used and not abused the wealth nature conferred upon it. All that Pennsylvania has gained is being continuously jeopardized by the unwisdom of those who have not learned the lesson Pennsylvania had drilled into it years ago: That quantity is not the only gauge by which an oil well may be measured.

Control Inevitable

Control of the petroleum industry is inevitable. If the present program should not succeed in sufficient degree to make its continuance necessary, other modes of control are likely to be adopted. Some of these may not be so pleasing to those whose antisocial attitude is just now jeopardizing the whole program. Oil is a vital element in the national defense. The nation cannot stand by supinely and see these oil reserves, so important in time of war, needlessly dissipated. It is not beyond the realms of possibility that, should all other control methods fail, the nation might eventually be forced to exercise such rights as it may find and taken possession or at least fullest control of this vitally important natural resource.

Furthermore, there are revenue questions intimately tied up with the oil industry. Petroleum products pay heavier taxes than any other products. Each barrel of gasoline pays an average state tax of 7⅔ cents and a fixed Federal tax of 27½ cents. The wastage of petroleum through its overproduction and its destructive use for fuel instead of its higher use in gasoline and lubrication, seriously affects both state and Federal revenues.

The employment problem is another phase of the national economic structure most seriously affected by anything which touches the petroleum industry. Over 20,000,000 people, resident in the oil-producing states, are more or less directly concerned with the well being of the petroleum industry. When that industry overproduces so that its products cannot be sold even on a cost recovery basis, then the consuming power of these 20,000,000 people is proportionately decreased, immediately affecting employment in the remotest industrial state whose products might have been sold to the residents of the oil states if their consuming power had been unimpaired.

Effect on National Life

The farmer's problem is affected by the petroleum industry since, when that industry is on a proper basis, the farmer receives many millions of dollars annually through lease payments and royalties.

The merchant marine has its interest in the petroleum industry. When the excise taxes were being considered by committees of Congress, I forecast that nearly 100 tankers, then idle, would be put into commission if these oil excise taxes, inadequate as they were, should be adopted. They were adopted. Reports made to the Planning and Co-ordination Committee show that over 94 tankers are now in continuous operation through the effects of that excise tax, giving employment to American seamen, to American dockyards, the cordage plants, the stevedores, and to that whole great industry which supplies our merchant marine with its fittings.

So one might go down the whole line of our industrial life and find that there is scarcely a phase which is not intimately affected by anything which concerns the well being of the petroleum industry. Outside of food, clothing and shelter, no other product enters so fully and directly into the lives of almost every man, woman and child as do the products of petroleum. It is, therefore, of the greatest importance that this industry should be stabilized, that it should have the fullest degree of self-government, that none be permitted to develop a monopoly within it, that no rugged individualists be permitted to raid it through unwise and wasteful overproduction, that it be not crushed by oppressive state or Federal taxation, but that it be encouraged, protected and permitted to develop along the soundest economic lines.

Bureau of Mines Report on Petroleum and Refined Products for February

Crude Petroleum — According to reports received by the Bureau of Mines, Department of Commerce, the production of crude petroleum in the United States during February, 1934, totaled 65,450,000 barrels. This represents a daily average output of 2,338,000 barrels which, compared with the average in January, represents an increase of 17,000 barrels and compared with production a year ago represents a gain of 7 per cent. Increased production in Texas was responsible for the gain in national output; in fact, the daily average production in Oklahoma, California, and the majority of the less important producing states declined. The daily average production in Texas in February was 987,000 barrels, compared with an average of 957,000 barrels daily in January. The increase of 30,000 barrels in daily average production in Texas was attributable to a gain of 20,000 and 10,000 barrels in East Texas and the Panhandle, respectively.

Total stocks of refinable crude on February 28 totaled 351,641,000 barrels, indicating a net withdrawal of 2,001,000 barrels during February. Stocks on the leases increased approximately 300,000 barrels in February, but refinery and tank-farm stocks decreased.

Total crude runs in February amounted to 66,470,000 barrels, or 2,374,000 barrels daily. This was 67,000 barrels higher than the January average and 194,000 barrels, or 9 per cent, higher than the average a year ago.

Refined Products—The percentage yield of gasoline in February (42.5 per cent) was practically the same as in January, hence the increase in daily average crude runs was directly reflected in a gain in daily average motor-fuel production. Exports of gasoline increased in February, averaging 72,000 barrels daily, compared with an average of 63,000 barrels in January. The daily average indicated domestic demand during February was 891,000 barrels, an increase of 7 per cent over a year ago. Stocks of gasoline on February 28 totaled 60,438,000 barrels, of which 56,653,000 barrels was finished gasoline and 3,785,000 barrels was natural gasoline. These data indicate an increase in finished gasoline stocks of nearly 4,000,000 barrels during February.

The February statistics of the minor products indicate continued high consumption of kerosene and gas oil and fuel oil.

According to the Bureau of Labor Statistics, the price index for petroleum products during February, 1934, was 50.3, compared with 51.1 in January and 34.3 in February, 1933.

The refinery data of this report were compiled from refineries with an aggregate daily recorded crude-oil capacity of 3,456,000 barrels. These refineries operated during February at 69 per cent of their capacity, given above, which compares with a ratio of 66 per cent in January.

THOMAS W. WHITE KILLED

Thomas W. White, who was killed in an automobile accident near Petersburg, Va., on March 17, came to Tulsa in 1912 from McKeesport, Pa., where he was city engineer. He organized the engineering department for the old White and Sinclair company, and headed it during the Cushing Field activity, later going with Sinclair Consolidated, with which he remained until recently when he organized a contracting business.

Complexities Involved in Administration's Bill

(Continued from Page 24)

ment to purchase surplus gasoline and reduce manufacturing operations could be quickly secured and put into operation. I think Secretary Ickes could secure such an agreement in a single day's conference.

Self regulation and a satisfactory price level without effective government assistance in the control of flush production of crude oil under present conditions, are impossible. Government regulation and a satisfactory price level without effective control of flush production of crude oil are also impossible. You do not avoid the fundamental necessity for controlling the production of crude oil by discarding the principle of self regulation and placing the whole industry under government regulation. Nor is there sound reason for abandoning self regulation and private operation until government control of crude oil production has been accomplished and has been found insufficient to stabilize the industry. The oil administration, handicapped by court decisions and differing legal opinions in another government department, has not yet succeeded in its own control efforts. There has been some failure in both industry and government. This is explainable but it is hardly a reason for vesting in the government a more drastic control than either has attempted.

Surplus Gasoline

In connection with the purchase of surplus gasoline the fact is sometimes overlooked that stabilizing purchases will be necessary even if we should reduce our national inventory and current quantity of production to sound economic levels. This is because there will be an unbalanced distribution of the inventory both geographically and as to individual companies. Few, if any, of our so-called integrated companies have a balanced integration. Some produce more crude oil than they need for their own manufacturing operations, others less. Some companies produce less gasoline than they distribute through owned or controlled outlets, while others produce more. Among the unintegrated companies there is, of course, still less balance and their production reaches the consumer through intermediate sales to other companies. This means that large purchases of gasoline are being currently made in the regular course of business, but most of such purchases, I believe, are not based on a current survey of available surpluses nor for the purpose of market stabilization. Would it not be helpful if current surveys of gasoline available for spot sale were made in all refining regions? Then the purchasing companies would have accurate knowledge of the situation and, acting individually, could make these purchases where they would do the most good. When I say "acting individually," I mean this: In considering the legal questions involved it must be remembered that knowledge is one thing and concerted action another. Statistical information, whether of an entire inventory or that part of it which the owner has for sale, can be secured and made available to all buyers without any fear of legal consequences. But an agreement to purchase might be unlawful, unless, under the code, it were approved by the administrator. At the present time we have an unduly large national inventory and the gasoline purchasing agreement was intended to take care of that immediate situation. When we get down to an economic inventory and production level the purchase of gasoline will still be necessary to equalize the unbalanced conditions to which I have referred and for this purpose accurate information as to the geographical and company surpluses would be valuable.

Urges One-Day Conference

The oil industry has been fortunate in having Secretary Ickes as an administrator. It is possible to draft legislation strengthening crude oil control which would have the support of by far the greater part of the industry. The Secretary, with the responsibilities of his own department and of the expenditure of billions of dollars under the Public Works Administration is doing the work of a half dozen men. I do not wish to add to his burdens but I said that in a day's conference he could reach a satisfactory agreement with oil company executives for reduction in gasoline manufacture and direct purchase of surplus gasoline. I believe he could and I wish he would try it. There is no company in the oil business, however large, which does not need and want a better price for gasoline. The original gasoline purchasing agreement was tied in with the marketing agreement but its more direct connection is with gasoline manufacture. Granted that oil company executives are "rugged individualists" and that some of them may not have fully appreciated the enduring changes that are going on in the relation of government to business, it is also true that they are capable of a co-operative effort to stabilize the industry whose possibilities have by no means been exhausted.

The third objective which I mentioned was relief from excessive taxation, particularly taxation of gasoline and lubricating oils. My views of this subject, as recently expressed to the Ways and Means Committee of the House and the Finance Committee of the Senate, have been widely distributed and do not need to be repeated here. You are familiar, I am sure, with the facts. There is no doubt that the gasoline markets in many localities are seriously disturbed by tax evasion and the growing tendency to divert the proceeds of the gasoline tax from road building and maintenance to other uses is depriving the industry of the benefits of the tax in an increasing measure. In view of the rate of current expenditures by the states and the Federal Government, we have a long, hard fight before us.

OPEN NEW YORK OFFICES

The Maritime Oil Co., operating the Deepwater Oil Refineries, Houston, Tex., have opened offices in New York, their representative being A. J. Doremus, 115 Broad Street.

You can now stabilize gasoline at a material cost of from ½¢ to 2½¢ per barrel

THE extremely small expense of obtaining gum stability in cracked gasoline is made possible through the use of Du Pont Gasoline Antioxidants. Their efficiency is so great that the cost ranges from only approximately ½¢ to 2½¢ per barrel of gasoline treated.

This new method, a successful substitute for the conventional refining processes, generally is less expensive, in many cases considerably so, than the cost of securing stabilization by any other means.

Here's how Du Pont Gasoline Antioxidants more than pay for themselves:

They reduce, in many instances eliminate entirely, acid treatments.

Redistillation is often avoided.

Equipment maintenance charges are cut through the lessening of acid corrosion.

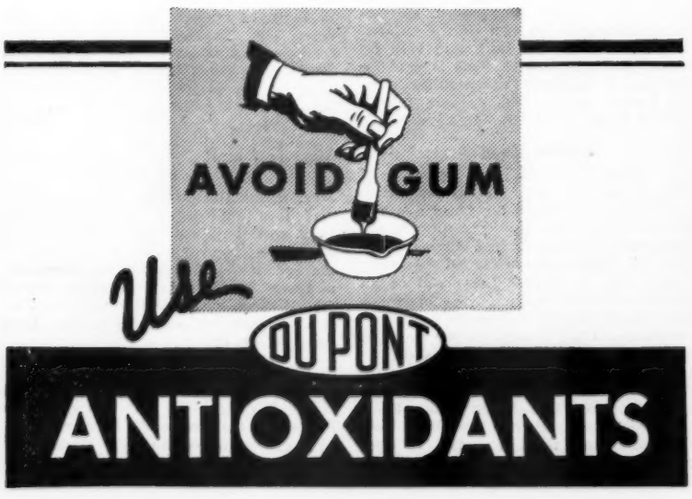
They effectively prevent gum formation.

They inhibit material loss of initial anti-knock value.

They increase color stability.

WRITE FOR SAMPLES AND TECHNICAL BULLETINS

E. I. du Pont de Nemours & Company, Inc.
Organic Chemicals Dept., Wilmington, Del.



PIPE LINE CONSTRUCTION

KANSAS COMMUNITY PROJECT

WICHITA, Kans., Apr. 9.—City officials and representatives of 41 towns have formed the Utilities Fair Rates' Association of Kansas, at a meeting at Halstead. Topeka, Atchison and Kansas City, Kans., were not represented.

The 41 towns, including Wichita, are going to take up the matter of piping gas from Kansas wells to nearby Kansas consuming centers. That phase will be looked into by a committee of the association, designated as the community pipe line committee. The pipe line committee was appointed to determine the cost of building pipe lines, and the feasibility of building gas pipe lines from the gas producing areas to the towns nearby.

Another proposal of the association is that gas pipe line companies be divorced from gas distributing companies. It is proposed there be a complete severance of stock ownership between the two branches of the business, and that the owner of stock in a pipe line system be denied the right to own or vote stock in a distributing system.

A legislative committee of the association was named at the Halstead meeting to investigate the desirability of doing away with the methods of fixing rates, which are based on the "reproduction cost new theory, less depreciation," and the adoption, instead, of the actual investment as a rate-making base.

Other proposals before the legislative committee are:

Complete severance of holding from subsidiary companies by denying holder of stock in holding companies to vote stock on subsidiary companies.

Abolishing demand and service charges.

Gross production tax on all gas produced in Kansas.

Sales tax of not to exceed 1 cent per 1,000 feet on all gas sold in Kansas.

Enactment of gas proration law.

Enactment of law making gas pipe lines common carriers.

Authorizing tax assessors to adopt values placed on utility properties for rate-making purposes as value for tax purposes.

Legislative committee to inform condidates for legislature of this program.

Recommend legislation restricting lobbying and making penalties more severe for unlawful lobbying.

The association is to hold another meeting at Eldorado, Kans., May 2.

Officers of the new association are: R. T. McCluggage, attorney of Eldorado, chairman; Thurman Hill, of Wichita, and Mayor E. L. Kinzer, of Halstead, vice chairmen; George W. Herman, Wichita, secretary; Mayor Frank Lostutter, Emporia, treasurer.

IMPORTANT PIPE LINE DECISION

HARRISBURG, Pa., Apr. 7.—President Judge William M. Hargest of Dauphin County court ruled yesterday that gasoline is oil and that pipe line companies have the right to lay lines across private lands without the owner's consent.

The decision prevents Ben T. Welsh, of Philadelphia, from interfering with the Keystone Pipe Line Co., a subsidiary of the Atlantic Refining Co., which seeks to lay a line through his property.

Reporting that there is no definition of oil, Judge Hargest held that since the company was chartered to transport, store and ship petroleum products it has the right of eminent domain common to other utilities.

Mr. Welsh says he will appeal to the Supreme Court.

The company owns 226 miles of pipe lines in Delaware, Chester, Berks, Schuylkill, Luzerne, Lancaster, Lebanon, Dauphin, Cumberland and Lehigh counties.

"Strange as it may seem," said the judge in an 11,000-word opinion, "there is no recognized standard definition of what constitutes oil . . . either in the domain of chemistry or among the lexicographers."

He agreed with testimony of chemists for the company that gasoline is a derivative of crude oil of petroleum and that all mineral oils contain gasoline in varying proportions.

Because of the widespread use of gasoline by the public, the court held that the public welfare is affected and that the Keystone company, which transports gasoline, is a common carrier and a public service company.

The court overruled the contention of the commonwealth, which was set down with Welsh as a plaintiff, that the company cannot exercise its right of eminent domain if it intends to carry gasoline through its pipes, especially after the Public Service Commission approved the company's right to transport gasoline.

The inequity of the commonwealth's position is cited in the opinion, in the fact that the State Highway Department permitted the company to cross state highways at 293 points, and the Water and Power Resources Board issued permits to the company to cross streams at 107 places.

Line in East Texas Field

Sixteen-inch Naylor spiral pipe strung along ditch for gas line into Lisbon Gasoline Co.'s plant at Gilmer, Rusk County, East Texas

Clyde Alexander Heads McCreslen Oil Company

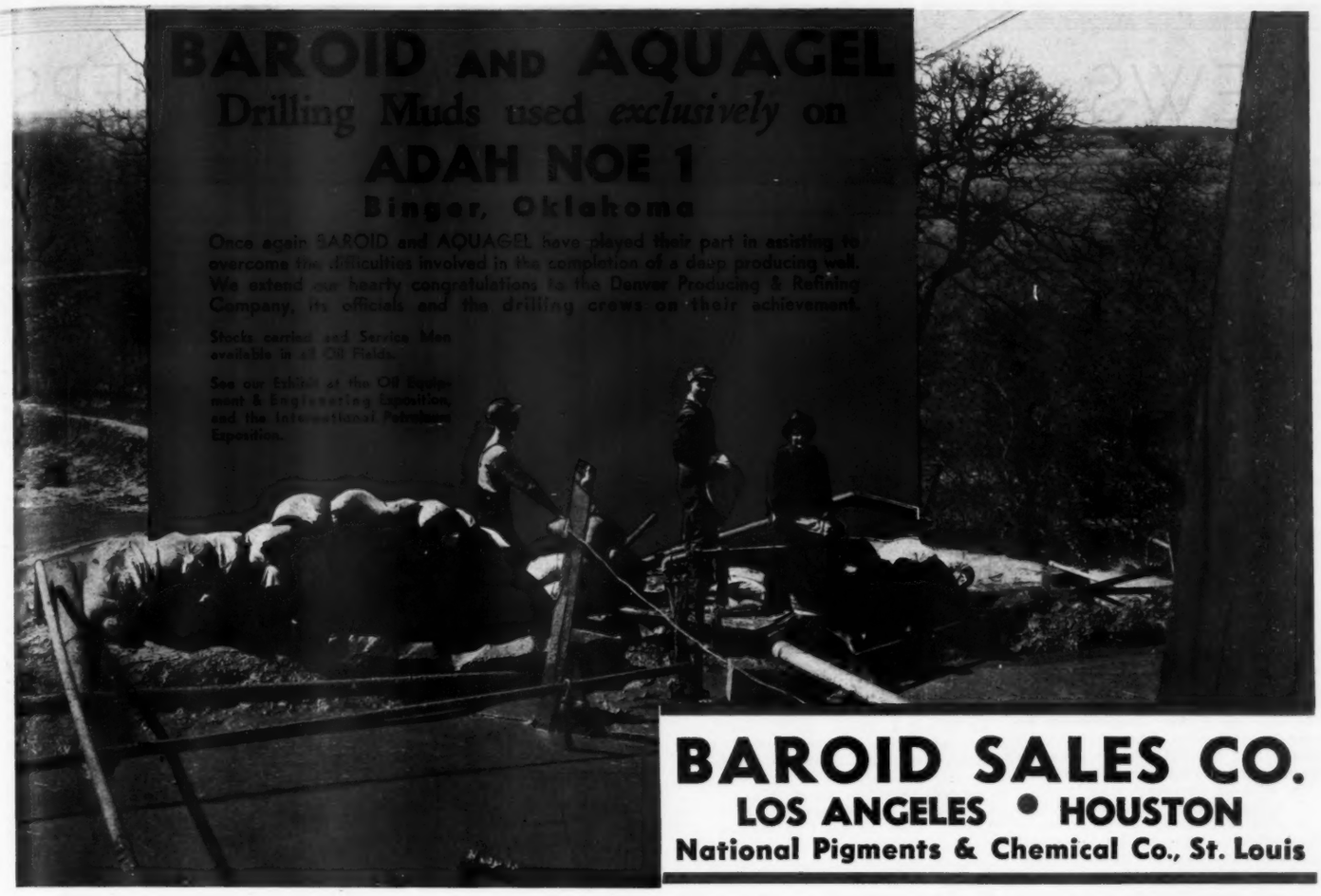
The formation of the McCreslen Oil Co., with headquarters at Bartlesville, Okla., and operating headquarters at El Dorado, Ark., has been announced by Clyde Alexander, former vice president and general manager of the Phillips Petroleum Co.

Mr. Alexander is president of the new company; Earl W. McFall, former production superintendent in Kansas for the Phillips company, is vice president and general manager, and Creston Alexander, son of the president, is secretary-treasurer.

Mr. Alexander, his wife, Mr. McFall and Mr. Alexander's sons, Creston and Glen, are directors of the company, a Delware corporation.

The company acquired from Mr. McFall 700 acres of proven leases in the Urbana Pool of Union County, Arkansas, on which four wells are producing 800 bbls. daily, and also 260 acres in the Smackover Field, with 12 wells producing approximately 100 bbls. daily.

An immediate 15-well drilling campaign is planned.


BAROID AND AQUAGEL
Drilling Muds used exclusively on
ADAH NOE 1
Binger, Oklahoma
Once again BAROID and AQUAGEL have played their part in assisting to overcome the difficulties involved in the completion of a deep producing well. We extend our hearty congratulations to the Denver Producing & Refining Company, its officials and the drilling crews on their achievement.
Stocks carried and Service Men available in all Oil Fields.
See our Exhibit at the Oil Equipment & Engineering Exposition, and the International Petroleum Exposition.

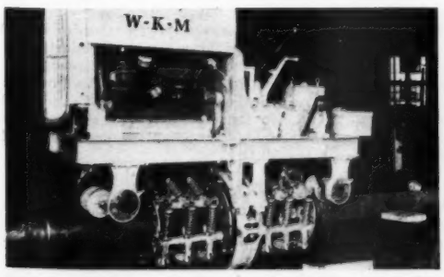
BAROID SALES CO.
LOS ANGELES • HOUSTON
National Pigments & Chemical Co., St. Louis

UNDERGROUND

Pipe Protection Procedure is Changing

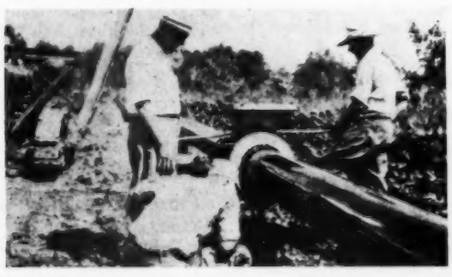
MORE PIPE (BOTH OLD AND NEW) IS BEING CLEANED BY W-K-M CLEANING MACHINES

• All pipe should be cleaned before the application of protective coating— The bond or adhesion between pipe and coating is much better with clean pipe •



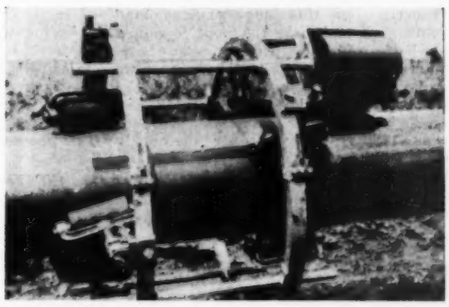
W-K-M PIPE CLEANING MACHINE

The new model "B" double head power driven pipe cleaning machine cleans pipe cheaper, faster and better. It is adaptable to either traveling or stationary work.



GARDINER PIPE COATING MACHINE

Hot coatings are being applied with the Gardiner coating machine, resulting in less wasted material; freedom from pinholes; uniform thickness of coating. The Gardiner coating machine is much faster than the "ragging" method.



JOHNS-MANVILLE PIPEWRAPPING MACHINE

More coatings are being wrapped with Johns-Manville wrapping machines, using J-M asbestos felt. A coating needs wrapping to withstand "soil stress." Tests conclusively prove wrapped coatings much better than upwrapped coatings.

CRUTCHER-ROLFS-CUMMINGS-INC.
Specializing in
PIPE LINE EQUIPMENT AND MATERIALS
HOUSTON, TEXAS U. S. A.

CRUTCHER-ROLFS-CUMMINGS
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Please send us complete information regarding W-K-M Pipe Cleaning Machines, Gardiner Pipe Coating Machines and Johns-Manville Pipe Wrapping Machines.

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NEWS FOR PETROLEUM REFINERS

Shut Down of Richfield Plants Suggested in Wire

LOS ANGELES Calif., Apr. 10.—Plans for the reorganization of the Richfield Oil Company of California would result in the eventual shutdown of all Richfield operating properties and would make the company practically a marketing unit of the Standard Oil Company of California, according to a statement of K. R. Kingsbury, president of Standard, contained in an exhibit attached to an affidavit filed in Federal Court this week.

The affidavit was submitted by counsel for Cities Service Company, as evidence to prove the contemplated plan presented to the court by the committees actually constitutes a "sale" of Richfield to Standard, rather than a reorganization of the company.

Mr. Kingsbury's statement was contained in a telegram addressed to W. Alton Jones, first vice president of Cities Service, on July 27, 1933. Prior to the receipt of the telegram Standard and Cities Service had been negotiating for a reorganization of Richfield on a 50-50 basis.

It was stated that disagreements between the two arose when Cities Service insisted that Richfield should remain a separate entity as an operating company.

Mr. Kingsbury's telegram said:

"It is our position, first, that our company shall manufacture the requirement of Richfield on the Pacific Coast and that the refineries of Richfield shall eventually be shut down.

"Second, that Richfield shall not undertake the acquisition of any producing property, but that our company and yours shall each have the right to supply one-half of Richfield's purchase requirements of crude oil—this because we do not not care to invest any part of our share of the Richfield earnings in any producing ventures in this territory, where we are now already thoroughly equipped to so invest such earnings on basis of our judgment and through our own organization.

"Third, that our company shall have the right to supply 50 per cent of Richfield requirements in the East, since Richfield has no production or refineries there. Since time is running to our disadvantage, we must request you let us have your prompt reply."

The affidavit asserted that negotiations have terminated upon receipt of this telegram.

During the court proceedings this week, Frederick W. Williamson, attorney for Cities Service, declared that:

"Cities Service is definitely a potential reorganizer of Richfield."

Both the reorganization committee and the court had questioned Williamson as to why Cities Service had not as yet definitely stated what it intended to do regarding reorganization of the company.

The attorney explained that his client felt that a different reorganization plan could not be submitted until the mortgaged and unmortgaged assets had been determined.

SHELL SALES PLANS

Plans for the year's advertising and sales campaign were discussed at a luncheon of the Shell Petroleum Corp. officials in the Rice Hotel Thursday.

J. C. Munroe, division manager, New Orleans, presided at the conclave. D. de Jaham, advertising manager, and A. E. Holleman, assistant, St. Louis; L. S. Schulte, assistant division manager, New Orleans, and J. Hunter Phillips, district manager, Houston, were in attendance.

50-CITY GASOLINE PRICE FOR APRIL 1 SHOWS DROP

The average service station price of regular grade gasoline, exclusive of taxes, in 50 representative cities throughout the United States on April 1, 1934, was 13.55 cents a gallon, as compared with 14.23 cents on March 1, a decline of .78 cent. A generally low state of the market accounted for the drop, which was increased by price wars in several areas.

The 50-city price April 1, 1933, was 11.58 cents. The 1934 composite price thus represents a gain of 1.97 cents over that of a year ago. The lowest average price for April 1 since the 50-city record has been kept was the one that prevailed in 1933. The highest April 1 price was that of 1924, when 21.45 cents was recorded.

EXEMPT NAVY FUEL

To help the Navy carry on summer fleet maneuvers, Secretary of the Interior Harold L. Ickes, the oil administrator, today announced the approval of an order exempting bids on the Navy's fuel oil supply from the oil code requirement that bids be at the posted price.

The order was recommended to Administrator Ickes by the Petroleum Administrative Board, which advised him that virtually the entire supply of oil of the quality required by the Navy was sold to the Navy, aggregating some 1,300,000 bbls.

In view of this, the board advised Administrator Ickes, any posted price of oil of that quality would be a fictitious price, since there was no other market for such oil. The board also said that to require a posted price bid would unsettle the Navy's budget, without effectuating the purpose of the oil code.

CONTRACT FOR RICHFIELD

Federal Court Judge William P. James has approved a contract whereby Cities Service Co. and the Consolidated Oil Co. through their subsidiaries will supply all gasoline requirements of the Richfield Oil Co. of New York and its associated companies, it was announced today.

The contract, dated April 1, 1934, extends for a period of one year and is thereafter subject to six months' cancellation notice. It is estimated that the requirements of Richfield company of New York will total approximately 4,000,000 bbls. per year. This amount of distribution in the East is about comparable to the annual gasoline distribution of the Richfield Oil Co. of California.

STANDARD BUILDING ARENA

CHICAGO, Apr. 9.—Entertainment of the kind Roman emperors provided for crowds packed in the ancient Coliseum will be one of the outstanding free features of this year's Century of Progress Exposition, arranged for by the Standard Oil Co. of Indiana.

From comfortable seats in a great open amphitheater, 2,500 visitors at a time will see Allen King, dare-devil animal trainer, go into a steel cage with 33 lions and tigers and put them through animal acts.

DISMANTLING TRINTEX

The Trintex Refining Co. at Trent is being dismantled, and the Humble Oil & Refining Co. has taken over all of its connections in the Noodle Creek Pool, Jones County, which has been supplying the plant with crude.

Burner Oil Section of Original Code Changed

The approval by Secretary of the Interior Harold L. Ickes, oil administrator, of a modification of Rule 22 of Article 5 of the oil code, affecting heating, fuel and bunker oils was announced April 2 by the oil administration.

The modification, which provides that it shall not be construed to affect existing contracts, prohibits free advisory service in connection with the sale of oils in this class, to conform to the oil burner industry code.

It also prohibits the paying of commissions to oil burner dealers selling to customers. The text of the modification follows:

"Refiners, distributors, jobbers, wholesalers or retailers shall not render any burner service in connection with the sale of heating oils and fuel oils unless a fair and reasonable charge is made for such service, which, in no event, shall be less than the minimum charge for such service established in the code of fair competition for the oil burner industry, or any modification thereof, and an additional charge shall be made for the replacement of any parts at not less than their reasonable cost.

"Nor shall any refiner, distributor, jobber, wholesaler or retailer grant in connection with the sale of heating oils a commission or compensation of any kind whatsoever to any dealer, distributor, installer or manufacturer of oil burners, oil burner service men, or oil burner service organizations or their employes or agents. Such commissions or compensation may only be extended by refiners, distributors, jobbers, wholesalers or retailers to their own regular employes, commission salesmen or bona fide commission agents. Nothing herein contained shall be construed to affect existing written contracts.

"Contracts covering the sale to consumers of heating oils and fuel oils shall be for a period not exceeding 12 months, except that contracts may be written for delivery over a period not to exceed three years for fuel oils having a viscosity as determined by the Saybolt Furol viscosimeter greater than 100 seconds at 122° F., or fuel oils having a minimum Conradsen carbon content of 4½ per cent provided that such contracts shall be made only with purchasers using fuels other than petroleum fuel oils at the time such contract is executed.

"No refiners, distributors, jobbers, wholesalers or retailers shall knowingly sell any heating oil or fuel oil to consumers in tank car lots unless said consumers have facilities for receiving and storing tank car lots at point of consumption."

FEDERAL TAXES SHOW GAIN

Eight special excise taxes levied by the Federal Government against petroleum and automotive products brought into the treasury $19,494,703.69 during February, 1934, representing an increase of nearly $7,000,000 from the $12,866,009.26 collected from the same taxes in February, 1933, according to the monthly summary of the Bureau of Internal Revenue. The current Federal tax of 1 cent a gallon on gasoline alone accounted for $14,731,087.88 for the 28-day month of this year, as compared with a return of $8,515,013.00 for the same period of last year.

In the list of taxes including lubricating oils, gasoline, tires, inner tubes, automobile trucks, automobile and motorcycles, auto parts and accessories, and transportation of oil by pipe lines, there were decreases only in the taxes paid on automobiles and motorcycles and on pipe lines. Revenues from automobiles and motorcycles declined 31.9 per cent from $1,180,847.07 to $803,880.53, and the pipe line transportation tax was off 32.5 per cent from $992,520.81 to $670,651.94. Revenues from inner tubes increased 123 per cent from $88,964.42 to $198,744.75. Gasoline totals increased 72.7 per cent, and the next highest percentage increase was in the returns from lubricating oils, which advanced 60.5 per cent from $1,024,566.69 to $1,647,257.89.

BOOTLEGGING OIL COSTLY

NEW YORK, Apr. 9.—Annual tax evasion in the United States, owing to the bootlegging of oil and gasoline, is estimated at some place between $25,000,000 and $100,000,000, according to J. D. Collins, general sales manager of the automotive division of the Tide Water Oil Co.

"Tax Commissioner Graves, of New York State, estimates that 5 per cent of the tax on oil and gasoline in that State is evaded each year through the operation of bootleggers of the product," said Mr. Collins. "Some of the other tax commissioners in the various states put the percentage of evasion as high as 20 per cent.

"There are $500,000,000 in taxes collected each year on oil and gasoline. If the 5 per cent figure is used the loss is around $25,000,000, but if the higher figures are true it is around $100,000,000."

MICHIGAN TAX SUIT

MUSKEGON, Mich., Apr. 9.—Payment of $247,502.20 to the State of Michigan by the Standard Oil Co. of Indiana was recommended last week by William S. Sayres, Jr., special Federal master in chancery at Detroit, in the State's suit for collection of $1,600,000 alleged due for gasoline tax.

The suit was based on a 3 per cent deduction for evaporation, seepage and loss provided by the Michigan gasoline tax law, one point of dispute being whether the deduction should be made on the quantity of gasoline loaded in tank cars at the Standard refineries in Whiting, Ind., or on the quantity received and distributed from its Michigan storage tank farms.

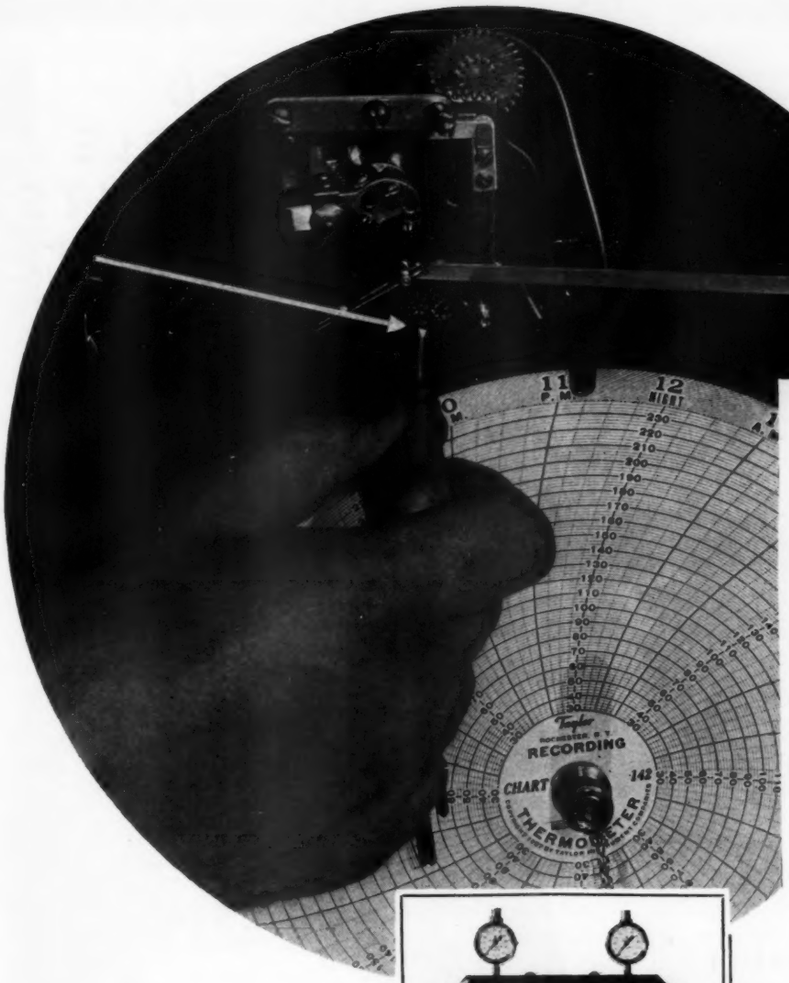
When the gasoline tax law was first enacted in 1927 it included no provision for seepage loss. It was amended in 1929 to permit a three per cent deduction.

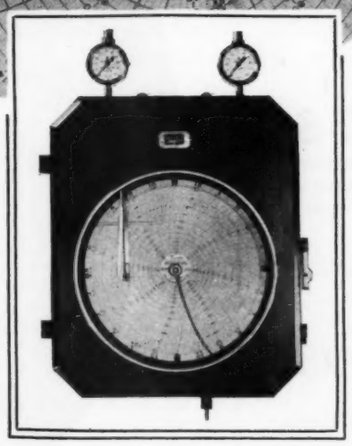
Sayres recommended the company be required to pay taxes on the three per cent withheld between 1927 and 1929 but not for any part of such taxes on the three per cent seepage withheld since 1929.

RIO GRANDE ADDS NEW UNITS

The Rio Grande Oil Co., California subsidiary of Consolidated Oil Co., is dismantling the twin Jenkins cracking unit at its Vinvale refinery and will begin the installation of larger cracking units about May 1, 1934. Wrecking has been under way for the past several weeks under supervision of Sam Reilly and, in addition to revising cracking equipment, present plans call for certain other reconditioning work. Among the larger parts of the plant being dismantled is a steel stack 42 inches in diameter and 140 feet in height weighing 11 tons, reflux towers, weighing 35 tons and 70 feet in height, as well as two 40-ton vapor drums. A. E. Greenberg, chief designing engineer of Sinclair, is in charge of new plant design and may likewise superintend initial construction work.

Add up these advantages





TAYLOR "FULSCOPE" REGULATOR

A special feature of this instrument that is revolutionizing regulator applications is the "Universal Sensitivity Adjuster." Just a turn of the screwdriver sets it for the one best sensitivity for a particular process. Therefore it is certain that the best possible performance will be obtained.

This adjustment can be quickly made while the instrument is in operation to obtain any control desired—steady throttling or on-and-off action.

Send for bulletin giving full details on the Taylor "Fulscope" Regulator. Address, Taylor Instrument Companies, Rochester, N. Y., or Toronto, Canada.

. . . They total new recording and regulating efficiency.

1 A graduated dial provides quick, accurate adjustment to the one best sensitivity for the controlled apparatus.

2 Reverse action obtained by changing the position of one part. Takes but a few minutes. No extra parts required.

3 Improved setting point adjustment makes possible more sensitive and more accurate temperature settings.

4 New type linkage reduces pen drag to the absolute minimum —makes pen drag almost theoretical. It disappears entirely for intermediate and low points of sensitivity.

5 Improved pen arm gives more uniform pressure between pen and chart. Entire arm of flexible stainless spring steel. New type micrometer screw facilitates adjustments.

6 Improved bearings and lighter leverage system of duraluminium without sacrifice of ruggedness practically eliminates friction.

7 Calibration is obtained by simply positioning the bearing in slot of arm attached to the bourdon coil.

8 Tube systems of Taylor Accuratus tubing can be easily replaced on the job with a minimum of adjustments.

Taylor

Indicating · Recording · Controlling

TEMPERATURE *and* **PRESSURE INSTRUMENTS**

The name Taylor now identifies our complete line of products, including Tycos instruments.

DEEP DRILLING

REED
Six-Way
Reamer

REED
FULL-HOLE
TOOL JOINTS

PERMIT FREE CIRCULATION OF THE MUD FLUID TO KEEP THE LONG STRING OF DRILL PIPE FROM GETTING STUCK AT GREAT DEPTHS

LOWERED PUMP PRESSURES
INCREASED DRILLING SPEEDS
IMPROVED BIT EFFICIENCIES
FREE RUNNING FOR SURVEYING OR CUTTING TOOLS, ETC.

The *New*
REED
Roller Bearing
ROCK BITS

SPEED WITH LIGHT DRILLING WEIGHTS
BALANCED FOR STRAIGHT HOLE DRILLING
SAFE WITH STURDY CONSTRUCTION
for
DEEP DRILLING

The *New*
REED REAMERS
keep
CONCENTRATED WEIGHT PERPENDICULARLY ON THE DRILLING BIT
FULL-GAGE STRAIGHT HOLES AT GREAT DEPTHS

REED ROLLER

The Reed Roller Bit Company is a member of the code of fair competition for the American Petroleum Equipment Industry and Trade.

SEE PAGES 399-434 NEW 1934 COMPOSITE CATALOG OF OIL FIELD EQUIPMENT

ANTICIPATED

MODEL B
Hard Formation Core
Drill Complete
with Reamer

The *New*
REED
Model B
CORE DRILL
SAFE
with
SIMPLIFIED CONSTRUCTION
to obtain
LARGER-LONGER
CORES
at
GREATER DEPTHS

WIRE LINE
CORE DRILLING
ANY NUMBER OF CORES
from
ANY DEPTHS
WITHOUT PULLING THE DRILL STEM
SAVING
HOURS AND HOURS OF DRILLING TIME
WEAR AND TEAR ON THE RIG
DRILL PIPE AND DRILLING LINES
with the
REED BARRETT-ROBISHAW
wire line
DRILLING-CORING BIT

CORE BARREL AND DRILLING BLADES
(removable through drill stem)
CHANGED
WITHOUT PULLING THE DRILL STEM
with the
REED WIRE LINE
Collapsible Blade
DRILLING-CORING BIT

REED
BARRETT-
ROBISHAW
WIRE LINE
DRILLING-
CORING BIT

The Core
Barrel
Assembly
Complete

BIT COMPANY

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Branches at: 1317 Esperanza St., Los Angeles; Kilgore, Texas; Lake Charles, La.; 1129 Southeast 29th St., Oklahoma City, Okla.
Distributed through Supply Companies Everywhere

Mid-Continent and Gulf Coast Distributors for
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MISSION MANUFACTURING PRODUCTS

Officers for Year Chosen by California District

LOS ANGELES, Calif., Apr. 7.—The spring meeting of the Division of Production of the American Petroleum Institute, California district, was exceptionally successful in attendance and quality of papers. The meeting was attended by 506 guests. Lester C. Uren, professor of petroleum engineering at the University of California, presented a paper on "The Present Economic Outlook for Russia," and judging from his remarks he has a high regard for the technical training and field practices of Russian drillers. "Application of Electrical Coring and Correlation in California" came in for some illuminating comments. R. E. Allen and Williom Hight of the oil umpire's office presented a paper on "The Effect of Curtailment on Drilling and the Maintenance of Company Position."

The meeting elected officers for the coming year. Bruce Barkis of Rio Grande Oil Co. was chosen chairman; W. C. Whaley, of Barnsdall Oil Co., vice chairman; W. G. Corey, Pacific Gear & Tool Works, treasurer, and D. S. Kilgour of California Oil and Gas Association, secretary. D. B. Collins of the Shell Oil Co. at Ventura was chosen vice chairman of the coastal division and George Keniston of the Standard Oil Co., with offices at Taft, was chosen vice chairman of the San Joaquin Valley division. The advisory committee, consisting of W. L. McLaine of General Petroleum, L. L. Aubert of Bankline, A. H. Bell of Continental, J. A. Bermingham of Texas Co., Bruce Barkis of Rio Grande, R. G. Copley of Standard, H. N. Macomber of Pacific Western, J. A. Jones of Associated Oil Co., L. B. Little of Standard, L. A. Cranson of Honolulu Oil Corp., H. F. Owen of Ethel D. Co., A. E. Wallace of Western Gulf, A. S. Hayes of Kenda, A. C. Rubel of Union, F. E. Rehm of Shell, W. C. Whaley of Barnsdall and R. E. Stearns of Universal Consolidated, was unanimously elected.

Standard Files Answer in California Hearing

LOS ANGELES, Calif., Apr. 9.—Three groups of California oil companies, their officers and directors, were arraigned here today on indictments charging violation of oil code.

General demurrers denying the charges have been filed on behalf of defendant companies. Attorneys for the Standard Oil Co. of California contended:

"The acts charged are authorized by law, and the petroleum code and cartel.

"Purveyors of merchandise under leading brand may sell excess quantities of same merchandise under other brands at lower prices.

"Cartel contemplates and recognizes that among companies of Group B (including Standard of California), there may be affiliates and subsidiaries of companies in Group A.

"Cartel contemplates and recognizes that Group B companies were to sell at different price for third-grade gasoline than Group A companies.

"Purveyors of oil products are authorized to meet competition, either local or general.

"There is no charge that Standard sold Flight brand or any other of its brands of gasoline at other than its posted price, or that Signal sold Peerless or any other of its brands at other than its posted price."

W. W. ORCUTT INJURED

LOS ANGELES, Calif., Apr. 7.—Mrs. Adeline M. Orcutt, 82 years of age, widow of John Hall Orcutt, died at her home in Santa Paula, Tuesday night. Her son, William Warren Orcutt, 65, vice president of the Union Oil Co. of California, who was seriously injured in an automobile crash while on his way to Santa Paula to be at his mother's bedside, is reported resting well as can be expected.

Thirty-four Refineries in East Texas Are Reported to Have Shut Down Plants

KILGORE, Tex., Apr. 9.—R. D. Parker, chief administrator of the oil and gas division of the Texas Railroad Commission, has announced that 34 East Texas oil refineries ceased operations after injunctions had been granted restraining violations of the new refinery control law. Five refineries under construction ceased building, it was said.

A report from J. D. Copeland, Jr., statistical clerk, showed injunctions had been granted against 21 refineries, two operators and one other individual.

Companies Listed

A Railroad Commission report showed injunctions had been granted against Arrow Refining & Producing Co., Kilgore Reclamation & Topping plant, Locke No. 2 refinery, Trinity Refining (Gilliland No. 2) Co., Century Refining Co., Eagle Refining Co., Foshee Refining Co., Gilliland Refining Co., Hanover Refining Co., Hawk Refining Co., Keystone Refining Co., Lapren Refining Co., Lotus Refining Co., Lake Refining Co., L. & A. Refining Co., Pennant Refining Co., Roco Refining Co., Panama Refining Co., Shoreline Refining Co., Unit Refining Co. and Southwest Refining Co.

Injunctions also were on file against Dewitt Travis, operator; Fox Wood, operator, and W. C. Rurnbos, individual.

It was explained that the injunctions did not close the refineries, but merely restrained them from violations of the refinery control law, which provides for authorities making inspections and exacting reports. The refineries were said to have closed of their own accord after the injunctions were granted.

Parker said the plants closed thus far were "old violators."

Randolph Bryant, Federal district Judge, meanwhile was considering a decision in injunctions sought against the Railroad Commission by the Arrow, Century and Gilliland companies. The judge planned to hand down a decision in a few days.

At New Orleans the U. S. Fifth Circuit Court of Appeals issued an order permitting Federal enforcement officers to conduct routine inspections and gather reports on oil production and refining activities in East Texas.

The court's order stayed portions of a permanent injunction granted in Federal court in the Eastern District of Texas. The order will remain in effect pending a decision by the Circuit Court on the legality of the code.

This was the case challenging the constitutionality of the code, filed by a number of East Texas producers and refiners, headed by the Amazon Petroleum Corp. and the Panama Refining Co., in which Federal Judge Randolph Bryant granted an injunction in February.

SHALLOW WELL WAGE SCALE

NOWATA, Okla., Apr. 9.—Drilling contractors and owners of tools in Nowata, Rogers, Washington and Wagoner Counties met here today and passed a resolution asking that the petroleum code regulations as to drillers and helpers in the stripper well area referring to the minimum wage be changed so that the stripper well areas may be required to pay drillers and helpers 25 per cent less than in the areas where the wells exceed 1,000 feet in depth.

PURCHASING AGENTS MEETING

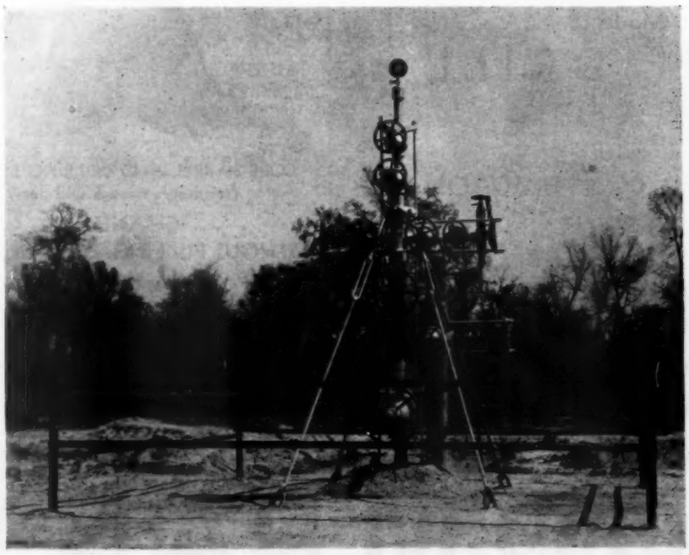
Members of the Tulsa Purchasing Agents Association will make a trip to the plant of the O. C. S. Manufacturing Co. at Coffeyville, Kans., on April 24. In the evening the regular association meeting will be held at the Dale Hotel, Coffeyville.

E. H. HORSCH DIES

LOS ANGELES, Calif., Apr. 7.—Elias Henry Horsch, 67, who brought in the second well in the northwest section of the Signal Hill Field, died recently after a two years' illness.

His well, brought in 15 years ago in what proved to be the richest and most productive section in the entire Signal Field area, was known as the Shell-Horsch and was situated on the northwest slope.

Discovery Well of the Long Lake Field in East Texas



The Long Lake discovery well in Southwest Anderson County, Texas. This well was brought in in September, 1933, making but a small amount of oil with heavy gas pressure. There are now three gassers producing in the area and another well producing oil with a large volume of gas. The area so far is principally a gas producing pool. The Tidewater Oil Company and Texas Seaboard Oil Company own the wells and some 24,000 acres surrounding them

President E. G. Seubert Gives Views on Oil Code

The annual report of Edward G. Seubert, president of Standard Oil Co. (Indiana) to stockholders, says:

"Far more than any previous undertaking, the oil code introduced the industry to economic planning and co-operative action as a substitute for independent thinking and action by individual units. Such a radical change could not be made without development of many complications and problems. For several months these have been the concern both of the industry's self-governing organization, the Planning and Co-ordination Committee, and the government administrative authority. Solutions are slowly being worked out through alterations in the code, through interpretative rulings, and through supplementary engagements.

"The code must pass not only the test of constitutionality, but also tests of practical application before it can be said with confidence that it brings to the industry a new and better order. Naturally, all who have given their best thought to its development hope that it will pass all tests.

"Adoption of the new plan of economic management came too late in 1933 to repair in entirety all the damage done in the early part of the year. Progress was actually more in prospects than in profits. There remain some doubts and many perplexities, but changes already effected in governing conditions and working arrangements give rise to a more hopeful feeling about the future of the industry.

"Competition engendered by the price policies of a small minority of operators brought the oil industry close to disaster in the early part of 1933. Crude oil sold down to 10 cents a barrel, and finished products were thrown on the market at ruinous prices. The period was one of the most unprofitable since oil has been handled in trade.

"Conditions grew somewhat better toward the close of the year. Illegal production was materially reduced for a few months, and surface conditions in marketing showed some improvement temporarily.

"Clearly of great assistance in saving the industry from ruin, adoption of the oil code nevertheless had some disadvantages. Chief of these was a new burden of cost for increased wage payments, which it was inexpedient to cover at once through advances in product prices."

Earnings in 1933 equal to $1.14 a share, compared with $1.04 in 1932. Last year's net earnings were $17,674,351, an increase of $2,145,847 over those of 1932. While the adverse conditions in the early part of 1933 caused a decrease of about $1,000,000 in operating income, this was more than offset by a gain in the non-operating income and by a reduction in interest charges.

Judge Bryant Enjoins Railroad Commission

TYLER, Tex., Apr. 10.—Federal District Judge Randolph Bryant has issued an order enjoining the Railroad Commission of Texas from interfering with the operation of reclamation plants in East Texas engaged in salvaging crude oil from creeks, etc. The operator of one of the reclamation plants had sued R. D. Parker, administrative chief of the Railroad Commission in East Texas, when the latter ordered the plants shut down, supposedly as a part of his program to stop hot oil production.

GOOD WELL AT CAYUGA

FORT WORTH, Tex., Apr. 10.—The Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 1 Wills, in S. Edmondson Survey, has come in making 150 bbls. per hour through 1-inch choke, extending the Cayuga area of northwestern Anderson County 1 mile northeast. Sand was topped at 4,501 feet and total depth is 4,086 feet. This makes the second well for the area opened last month.

W. L. JAMES

President, The Purchasing Agents Association of Tulsa.

"Business and industry, large and small, nationally and locally, has been over-expanded and oversold for a number of years past. The inevitable result of such inflation followed. With realization of these errors people are now becoming purchase-conscious. This is especially noticeable in the ranks of organized buyers.

"Our Association has mapped out a program of diversified and educational nature which consists of talks on business fundamentals, economics, the purchasing function, plant visitations and other subjects conducive to efficient purchasing. One of the most important gatherings scheduled is that of the Oil Company Buyers' Group of the National Association of Purchasing Agents, which will be held in Tulsa on May 15, during the International Petroleum Exposition. Later in the year an Executives' Night meeting will be held.

"Our membership as a whole is united in a whole-hearted spirit of co-operation in Association activities, and we have an optimistic outlook based upon general business improvement during the past several months."

The PURCHASING AGENTS ASSOCIATION OF TULSA

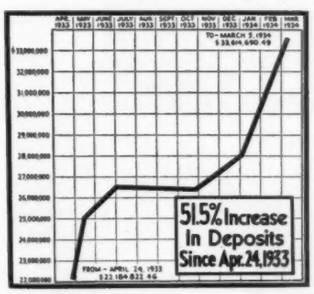
THE Purchasing Agents' Association of Tulsa, organized in 1919, is one of the oldest chapters of organized buyers in the country. It is actively affiliated with the National Association of Purchasing Agents with a membership of five thousand. The present membership of Tulsa Association is 65, made up of purchasing agents of important oil companies and allied industries in the Mid-Continent oil area, with huge buying power. Headquarters are maintained at 315 Tulsa Building, Tulsa, Okla., with H. M. Cosgrove, Executive Secretary and E. R. Welch, Assistant, in charge.

The objects of the Association are to foster and promote intercourse among its members in the development and application of efficient and ethical purchasing methods and practices; to collect and disseminate information of benefit to its members regarding fundamental manufacturing, producing and marketing practices, various products and their uses; to strive to correct trade abuses and by all proper means to advance the purchasing profession.

The Association was prominent in the origin and development of the material standards of the American Petroleum Institute, and for more than a decade, in co-operation with suppliers, maintained an Oil Industrial Exhibit in Tulsa. From this Exhibit came the idea of the present International Petroleum Exposition. The important Oil Company Buyers' Group of the National organization originated in Tulsa Association and is still one of its major activities.

The Mid-Continent Purchaser is the official publication of the Association. Through this medium Association affairs, the buyers' viewpoint on business and economics, and other matters of interest are presented to members and other buying factors in the Mid-Continent area, in line with the primary objectives of the organization.

A view of Boston Avenue, Tulsa. National Bank of Tulsa Building on the right.



An average increase in Deposits of more than $1,000,000 per month since April, 1933.

Oil men from all over the United States and from foreign oil producing countries look to Tulsa—to the National Bank of Tulsa—for financial service.

The ample resources and the facilities of this bank are available to those who meet its reasonable requirements whether their business be large or small.

NATIONAL BANK OF TULSA

TULSA OKLA.

CAPITAL RESOURCES $8,000,000

Member Federal Reserve System

More Production with Less Power

SELF-CONTAINED PUMPING UNITS

PARKERSBURG designed this Self-Contained Pumping Unit with a 10-foot stroke so as to secure the definite advantages of decreased power costs and increased production gained by a long, slow pumping stroke.

Its straight lift with maximum stroke of ten feet is obtained by means of an oscillating Sampson Post and guide links that tie the top of a double Pitman assembly to rigid front columns. This unique construction makes the Unit symmetrical about the Beam center line, thereby eliminating weaving and eccentric loading.

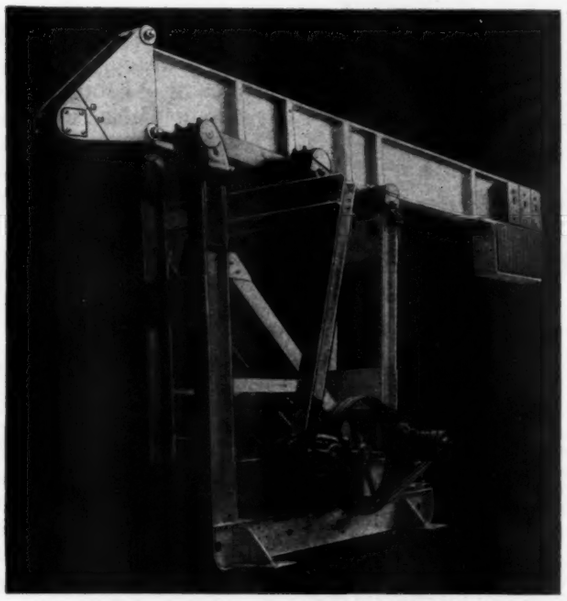
Shorter strokes are obtainable with the SC-10 Unit when desired; the SC-4 Unit is recommended for those who prefer the conventional short pumping stroke.

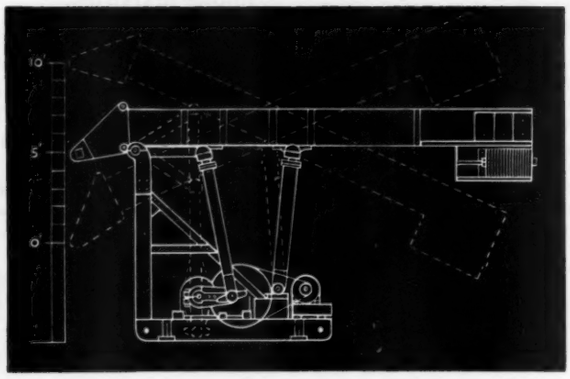
Write for Booklet J-6-33 giving full details.

The PARKERSBURG RIG AND REEL CO.

PARKERSBURG, W. VA.

Branches in All Active Fields





Illustrating how Parkersburg Self-Contained Pumping Unit (SC-10) secures an absolutely straight lift motion. The Sampson Post oscillates back and forth through a small arc an equal distance each side of its vertical center line . . . The double Pitman, tied to rigid front columns by guide links, also oscillates . . . By this assembly the arc through which the Beam nose normally travels (in Standard Rigs) is corrected into a vertical straight line.

Parkersburg Self-Contained Unit with Four-Foot Stroke. Especially designed for East Texas conditions. A special adaptation of the "Arc Type" Head secures positive, straight-lift motion. A substantial, compact unit; rigid, strong, vibrationless. Quickly and easily assembled.

THE PARKERSBURG RIG AND REEL CO.

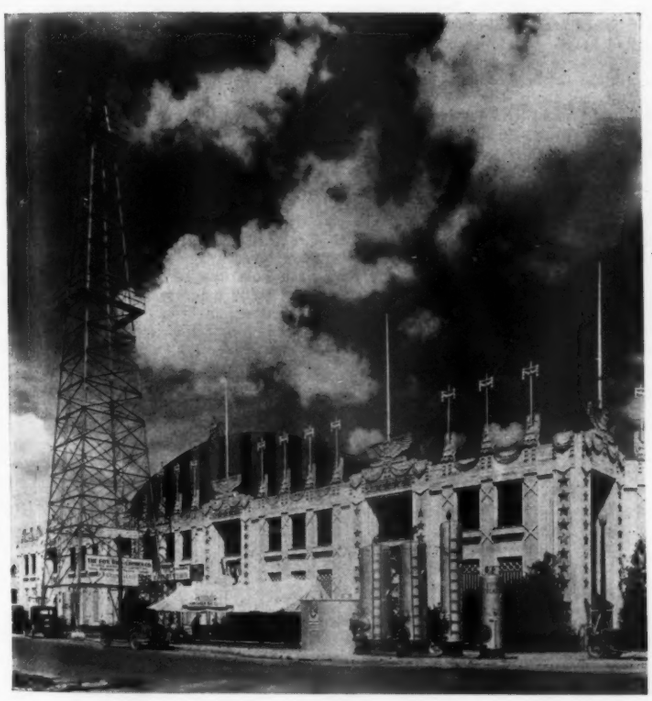
TRADE MARK REG.

by PARKERSBURG

All Exhibit Space Taken for Oil Equipment and Engineering Exposition Opening, April 16

HOUSTON, Tex., Apr. 9.—Final detailed plans for the Oil Equipment and Engineering Exposition in Houston, the fifth annual show staged by this exposition, were completed April 1, at which time all available exhibit space was taken, with 245 manufacturing or distributing companies represented in the exhibits this year. The show will open April 16 and continue for six days.

Interest in the Houston Exposition has been widely manifested, with oil companies throughout the Southwest mailing or passing out free admission tickets furnished by the exposition. Letters have been received from 20 foreign nations, stating representatives would attend the show. Many foreign representatives who stated they could not be in attendance filled out questionnaires listing the equipment or material in which they were interested. Such information will be available to exhibitors at the exposition, who in turn may furnish this list with their literature covering this equipment.



View of entrance to Oil Equipment & Engineering Exposition in Houston which opens April 16 and extends throughout that week

Among the foreign countries expected to have men at the show are Australia, Argentina, Russia, Rumania, Ecuador, Mexico, Colombia, England, Holland, Canada, France, Germany, Poland, Trinidad, Iraq, Venezuela, Java, Sumatra, Italy and Japan.

Arrangements have been completed by E. G. Lenzner, general manager of the exposition, for foreign representatives attending the show to be taken on trips through the most interesting fields of the Gulf Coast and other nearby points where unusual drilling, production and refining methods are in use, and where the world's most modern equipment is being used.

The exposition in Houston will be highly educational, having exhibits representing practically every type of oil industry equipment manufactured today, including scientific instruments and all classes of geophysical equipment. Educational pictures furnished by the U. S. Bureau of Mines (Pittsburgh office) will be shown, depicting interesting oil history in a number of remote points throughout the world. Sixteen teams have been entered in the first-aid contest. These teams, comprising employes of leading oil companies, gas companies and utility companies, have spent considerable time practicing to demonstrate first aid in the oil fields, refineries, gasoline plants, filling stations and industrial plants.

Display windows at strategic points in Houston have been given over to the exposition for the purpose of displaying the various types of oil industry equipment, in model or miniature form.

More than 30 cities and towns throughout Texas have completed plans for representation in chamber of commerce exhibits, including all of the affiliated member cities of the West Texas Chamber of Commerce.

Chief among the outside exhibits is a modern 122-foot steel derrick, with a 7-foot substructure. Other outside exhibits will include fire-fighting demonstrations, pumping units, storage tanks, oil and gas separators, oil industry hauling methods, blowout preventer demonstrations, miniature fields in the form of assembled and tested well hook-ups installed, and engines, including gasoline, gas and Diesel, all in operation.

Port of Houston, working with the chamber of commerce and Oil Equipment and Engineering Exposition, has an exhibit which will serve as the Port Commission's headquarters for arranging for oil and equipment men to make a boat tour of the Houston Ship Channel, seeing terminal loading facilities, refineries, etc.

Included in the group of directors of the Oil Equipment and Engineering Exposition are executives, engineers, superintendents, purchasing agents and drilling contractors. The list is as follows:

Bob Abercrombie, secretary-treasurer, J. S. Abercrombie Co., Houston; George O. Baird, independent operator, Shreveport; S. R. Bowen, president, S. R. Bowen Co., Huntington Beach, Calif.; M. L. Cashion, Gulf Production Co., Houston; Fred W. Dallas, general superintendent, Pure Oil Co., Houston; Wirt Franklin, president, Wirt Franklin Petroleum Corp., Ardmore, Okla., and president of Independent Petroleum Association; Harold Funk, Gulf Coast superintendent, Sinclair Refining Co., Houston; Wright Hodges, superintendent of production, Standard Oil Co. of Kansas, Houston; F. A. Hopper, president, Hopper Machine Works, Bakersfield, Calif; J. M. Hughen, president, Petroleum Iron Works Co., Beaumont; C. H. Lane, president, Oil Equipment Sales Corp., Houston; V. B. Likins, president and general manager, Osage Metal Co., Inc., Oklahoma City; E. L. Lorehn, vice president and general manager, Cameron Iron Works, Houston; J. H. McEvoy, president, J. H. McEvoy & Co., Inc., Houston; M. (Bink) Manning, president, Houston Oil Field Material Co., Houston; Earl W. Miller, vice president, American Iron & Machine Works Co., Oklahoma City; H. W. Millmine, president and general manager, Texas Rubber & Specialty Corp., Houston; J. R. B. Moore, vice president, Windsor Oil Co., Houston; George L. Nobel, Jr., secretary-treasurer, Houston Production Co., Houston; C. E. Olsen, vice president and general manager, Gearench Manufacturing Co., Houston; Louis Pearce, vice president and general manager, Texas Iron Works, Houston; A. J. Penick, president, Oil Center Tool Co., Inc., Houston; Albert Plummer, president and general manager, Albert Plummer Drilling Co., Inc., Houston; Harry Potts, sales manager, Kerotest Manufacturing Co., Pittsburgh, Pa.; George L. Ratcliffe, general manager and vice president, Baroid Sales Co., Los Angeles, Calif.; J. H. Russell, assistant to vice president, Gulf Production Co., Houston; W. D. Shaffer, president, Shaffer Tool Works, Brea, Calif.; Nowery J. Smith, Nowery J. Smith Co., Houston; J. B. Steel, superintendent, Cullen & West, Houston; G. Schlicht, engineer, Deutsche Petroleum Aktien Gesellschaft, Berlin, Germany; Nic Stefanescu, chief engineer, I. R. D. P. Co., Mislea, Gara Baicoi, Rumania; Chase E. Sutton, division manager, Pure Oil Co., Houston; W. C. Thomas, Gulf Coast superintendent, Magnolia Petroleum Co., Lake Charles, La.; E. T. Thompson, Norvell-Wilder Supply Co., Beaumont; W. E. Trautwein, secretary-treasurer, Albert Plummer Drilling Co., Inc., Houston; Dr. W. V. Vietti, petroleum engineer, Texas Co., Houston; T. E. Ward, president and general manager, Oilfield Equipment Co., Inc., New York, and John A. Worthington, assistant to president, American Hammered Piston Ring Co., Baltimore, Md.

Program for Spring Meeting, Southwestern District, A.P.I.

Division of Production

Time: April 20-21, 1934.

Place: Venetian ballroom, Blackstone Hotel, Fort Worth, Tex.

Hotel reservations: Reservations for hotel accommodations must be made direct.

Friday Morning Session, April 20, 9:30

"Vocational Training in the Oil Industry," by George H. Fern, director industrial education, Austin, Tex. (This paper will describe the facilities available on vocational training to the oil industry under the Federal Smith-Hughes act of 1917, and the progress made to date in forming classes and developing courses of study on practical production subjects.)

"Killing Crater Well at Conroe," by John R. Suman, Humble Oil & Refining Co. (This paper will be an informal talk, illustrated by lantern slides, describing the equipment and methods used in killing the Harrison-Abercrombie Alexander No. 1 cratered well at Conroe. This was an unusual engineering feat.)

"Recent Developments in Production Equipment and Methods," joint paper by J. M. Cooper and T. W. Rhoads, Gulf Production Co. (This paper will discuss slow speed pumping, insert pumps, plunger pumps, improvements in standard rig construction, high temperature in acid treatment of wells, use of vacuum bailer in cleaning wells, and other interesting developments.)

12:15 Luncheon

The oil and gas division of the Fort Worth Chamber of Commerce is sponsoring a special luncheon for the visitors in the Blackstone Hotel. W. R. Boyd, Jr., executive vice president of the American Petroleum Institute, will be the principal speaker.

Friday Afternoon Session, 2

"The National Petroleum Code." This entire session will be devoted to a general discussion of the national petroleum code by the officers of the Texas production committee of the regional Planning and Co-ordination Committee, District No. 4. Various aspects of the work will be covered by the chairmen of the respective subcommittees that have been appointed.

"General Function and Purpose," by L. E. Barrows (Texas Co.), chairman.

"Allocation Committee," by Jack Pew (Sun Oil Co.), chairman.

"New Pools Committee," by F. C. Sealey (Texas Co.), chairman.

"Stripper Wells Definition Committee," by P. B. Flynn (Reno Oil Co.), chairman.

"Drilling Practice Committee," by J. H. Russell (Gulf Production Co.), chairman.

"Enforcement Committee," by R. L. Wheelock, chairman.

Annual election of officers and advisory committee, Southwestern District. Report of Nominating Committee.

Saturday Morning Session, April 21, 9:30

"Practical Application of Accident Prevention," by C. L. Hightower, Texas Pacific Coal & Oil Co. (This paper will discuss the benefits that accrue from the use of a practical accident prevention program in production work; cost of accident prevention versus compensation rates will also be covered.)

"Use of Flush-Joint Casing and Drill Pipe," by Dr. W. V. Vietti, Texas Co. (This paper will discuss the increasing use of flush-joint casing and drill pipe in the Gulf Coast area.)

"Pressure Completions of Wells in West Texas," by E. V. Foran, consulting engineer. (This paper will describe the methods and apparatus used in completing, under control, high-pressure wells in West Texas.)

"Changes in Hydrostatic Pressure Caused by Movement of Drill Pipe," by George E. Cannon, Humble Oil & Refining Co. (A survey of recent blowouts reveals that a large majority of blowouts occur while the drill pipe is being withdrawn. This paper will include a survey of pressures observed during this operation, as well as other information on control of high pressures with rotary muds.)

Adjournment. There will be no afternoon session on Saturday.

Widespread Efforts to Explore Deep Production in Progress in Scattered Coastal Districts

By NEIL WILLIAMS
Gulf Coast Bureau, The Oil and Gas Journal

HOUSTON, Tex., Apr. 9.—Not before have there been such widespread and concerted efforts to explore deep production possibilities as are under way at this time on the Gulf Coast. The aggregation of deep tests drilling or completed within recent weeks is of such magnitude as to present an imposing array of operations. Scattered from one end of the district to the other, this work has assumed a status of major proportions and in it a very definite trend of development has been established.

For the most part directed at finding new and more deeply seated salt domes believed to exist and at proving up lower and lower sand horizons around many of the present producing fields and domes, this drilling program is of more than ordinary importance. Of particular concern is what may be brought to light in the way of new oil reserves and also of interest is the test which this deeper drilling is placing on the ability and efficiency of modern well equipment to go to extreme depths.

The present exploration program is being spoken of in terms of 7,000-foot, 8,000-foot and 9,000-foot holes. During the past two months there have been drilling at those depths some two dozen and more tests. The majority of these have been on separate wildcat prospects or single tests in new territory around the older fields. The fact that they have not been grouped into any one local area but have represented a general play over the entire Gulf Coast extending some 600 miles across southern Louisiana and South Texas, is the striking part of the activity.

Two Definite Facts

The deep drilling play on the coast is a reflection of two definite facts:

First, the petroleum industry really is beginning to be concerned over the question of where it is to obtain its oil for the future.

Second, the general condition in the industry has improved to such an extent as to justify the expenditure required to carry on such wholesale wildcat exploration at depths below 7,000, 8,000 and 9,000 feet.

The deep exploration program under way now is solely an attempt of the operating companies to prove additional reserves in anticipation of the time when it is expected there will be a need for oil. In nearly every instance the prospective reserve is controlled by a single company, whose only purpose in the drilling is to determine the existence either of the dome or structure or the presence of production and then to carry on development only as necessary.

That the major part of new production in the future on the Gulf Coast is to come from the deeply seated horizons is beginning to be realized more and more with the gradual elimination of the shallower fields and prospects from the picture as a result of development and wildcatting of past years. It no doubt is likely that additional shallower prospects remain, one important possibility being in the drilling of overhangs on more of the shallow domes, yet the opportunities for this become fewer and fewer with each new discovery.

Scope of Development

The scope of the present deep development program is indicated in the fact that some 15 to 20 companies, including both majors and several of the larger independents, are taking part in it. The amount of money these companies are putting out in exploration of the possible deep sand production pictures the confidence placed in the discovery of additional reserves.

Possibly in no other part of the country is there more opportunity for deeper production than on the Gulf Coast. It has been variously calculated there are some 30,000 to 35,000 feet of sedimentary formations drilling of which is only limited by the capability of modern equipment to go to such depths. The fact that in all the drilling to date on the coast, no test has really begun to get down to horizons found productive in inland fields, leaves much in store for future exploration on the coast.

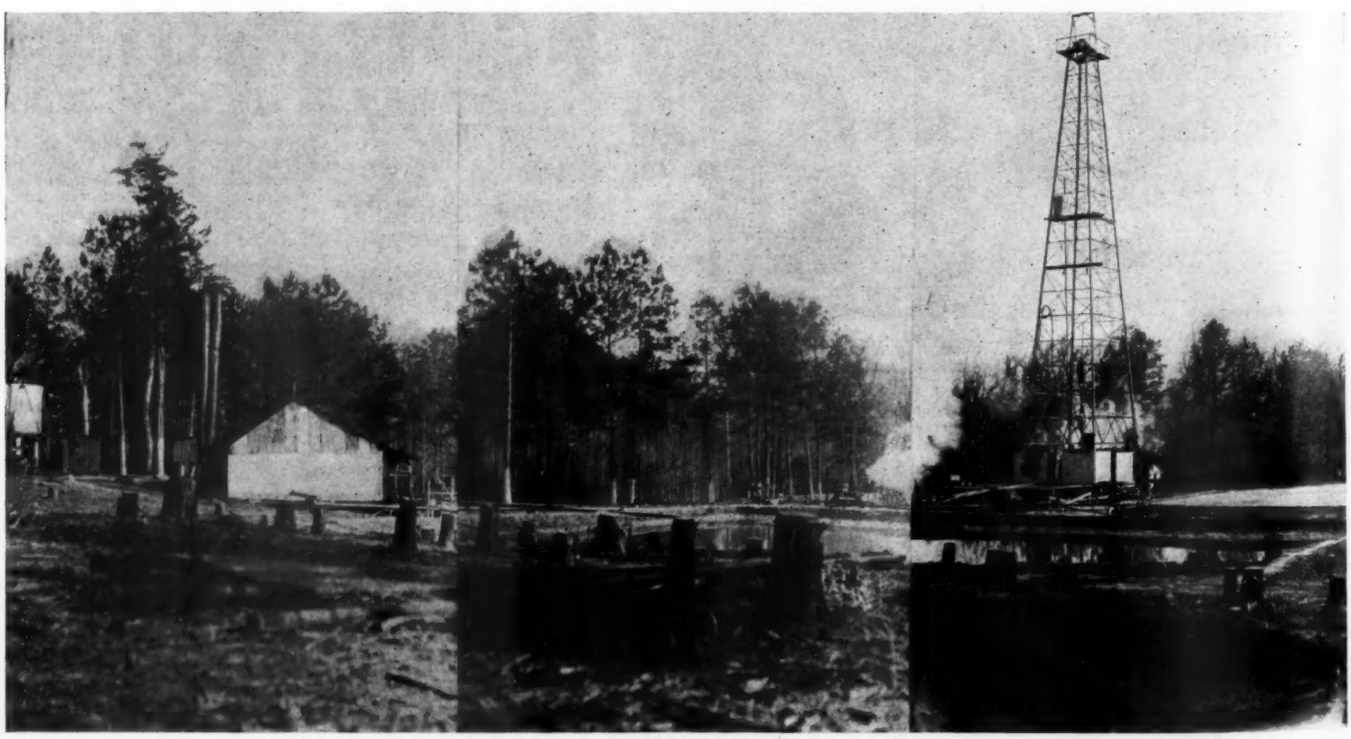
So far no tests on the Gulf Coast have ever reached such depths as drilled to in certain other parts of the country, principally California. The abundance of oil at considerably shallower depths both on the coast and in such adjoining fields as East Texas has discouraged any real efforts at deep drilling within recent years. However, with the production situation fairly well in hand and the need of additional crude reserves being felt, the occasion has arisen for the present deep drilling campaign, and it is expected that in this play drilling will be carried to new record depths.

Deepest Test

The deepest test on the coast up to now has been Yount Lee Oil Co.'s No. 1 Boyt, located on that company's Gum Island prospect on the Liberty-Chambers County line. That test went to a total depth of 9,865 feet, being abandoned as dry last September. It was one of two 9,000-foot holes drilled within a mile of each other, the first being the same company's No. 1 Plummer which was abandoned as dry at 9,334 feet.

A total of five holes has been drilled below 9,000 feet on the coast. The first to reach that depth was Union Sulphur Co.'s No. 762 fee at Sulphur, Calcasieu Parish, Louisiana, which went to a total depth of 9,250 feet, the last 3,386 feet of which was salt. That was in April, 1931. Later the well was plugged back to around 5,080 feet and completed as a producer in a sand there. In 1932, Edwin M. Jones drilled a well at Refugio, his No. 1-B Mitchell, to a total depth of 9,131 feet. At that level, the test had a sand showing oil but efforts to complete a well were unsuccessful. The other 9,000-foot hole is United North & South Development Co.'s No. 2 Stoddard (Unit 6), which still is drilling. The test reached a total depth of 9,257 feet several weeks ago but since then part of the hole has been lost and efforts now are being made to get back to bottom.

There has been a steady tendency toward deeper and deeper drilling on the coast. Not so many years ago, a 5,000-



Union Sulphur Co.'s No. 1 Barbe, Gillis area, northeast of Lake Charles, Calcasieu Parish, La., one of the many wildcats being drilled on geophysical evidence in exploration for deeply seated salt domes. This set-up is in a small clearing cut out of a timbered swamp. It is typical of the complete and semi-permanent facilities provided for modern deep wildcatting on the coast. R. W. Wimbish is superintendent at Gillis

A good basis for buying valves and pipe fittings

IF you buy your valves and pipe fittings on the basis of speedy installation, dependable service, and economical maintenance, you will follow the example of the many concerns in the oil industry which have standardized on Kennedy Products.

Besides these important assurances, an additional advantage of standardizing on Kennedy Valves, Malleable Iron Pipe Fittings and Cast Iron Pipe Fittings is that the Kennedy lines include a type and size for all your requirements.

For example, Kennedy Valves are built for 400-lb., 700-lb., 1,000-lb. and 1,600-lb. test pressures and also for lower and extreme pressures. Be sure to specify Kennedy on your next order for valves or pipe fittings. You can obtain them from your local supply house.

See our exhibit at the Oil Equipment and Engineering Exposition
Houston, Texas, April 16th to 21st.

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the Preference of Good Drillers *Everywhere*

Williamsport wire lines

are outstanding in performance.

Good Drillers everywhere will tell you this. In every field you will find WILLIAMSPORT the dominant lines, because they are dependable for long enduring service.

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HOUSTON, TEXAS

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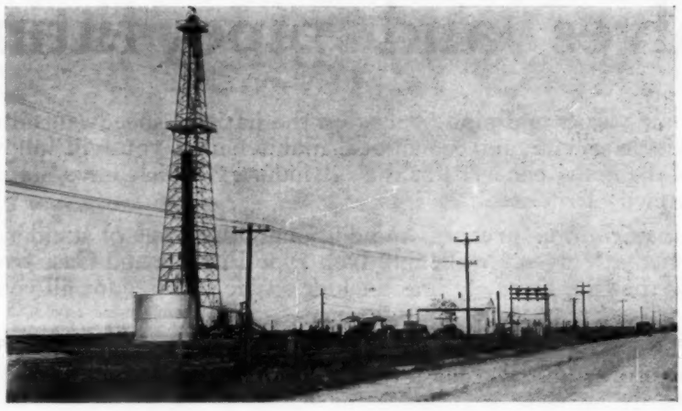
foot hole was unusual. Then as development of the 5,000-foot horizon increased, 6,000 feet was looked upon as a great depth. As late as 1929, no test on the Gulf Coast had ever been drilled to a depth of over 7,000 feet. In the latter year seven tests went below 7,000 feet, two of which, Yount Lee Oil Co.'s No. 4 Crowley at Jennings, Acadia Parish, and the same company's No. 4 Chambers at Barbers Hill, Chambers County, Texas, were drilled below 8,000 feet to 8,250 feet and 8,150 feet, respectively.

Total of 115 Wells

At this time, a total of 115 wells has been drilled to depths below 7,000 feet, 5 of these being below 9,000 feet, 25 between 8,000 and 9,000 feet, 30 between 7,500 and 8,000 feet, and the remainder between 7,000 and 7,500 feet. The present deep development has made 7,000-foot holes common and has swelled materially the list of 8,000-foot tests. Since January 1, eight have been drilling below 8,000 feet. While four of these have been abandoned, leaving only four actually drilling, it will not be long, however, before a group of wells in the 7,000-foot class reach the 8,000-foot horizons, and additional new deep tests are constantly being started to replace those. There now are tests under way which are scheduled to go as deep as 10,000 feet. In fact nearly all the tests drilling in exploration of lower horizons have machinery capable of going to that depth, barring unforeseen trouble.

Deepest Production

Deepest commercial production on the Gulf Coast at this time is at Buckeye, Matagorda County, a field being developed by the United North & South Development C. There, several wells have been completed in a 7,900-foot horizon in the Marginulina zone of the Oligocene. A single well at Jennings in Acadia Parish surpasses this depth, being at 8,662 feet, but it makes only one head of about 10 bbls. once a week and hardly can be classed as commercial at its depth.



Humble Oil & Refining Co.'s No. 2 DeVilbiss, Roanoke, Jefferson Davis Parish, La., drilled with an electric rig. This is believed to be the deepest test ever drilled with this type of rig. It was drilled to a total depth of 8,423 feet, where it is in sand showing oil but attempts to make a well were unsuccessful. This well still is working, being one of the numerous wildcats put down in the present deep exploration program on the coast. This is a 165-foot steel derrick

The discovery well at Buckeye, completed in August of 1932, broke the production depth record which had been held by a 7,300-foot horizon at Jennings, in which Yount Lee Oil Co. had completed three wells. The discovery well, No. 6 Housierre-Latrielle, producing from a depth of 7,296 feet, was brought in June 6, 1929, and has been flowing steadily since. Previous to that, the deepest production was at Sweet Lake, where Pure Oil Co. had a well from a sand at 5,897 feet completed in October, 1926, and another from a slightly lower depth at 5,924 feet, completed in May, 1928.

More recently, the Iowa Field, on the Calcasieu-Jefferson Davis Parish line, in Louisiana, has been developed to sizeable proportions with the main production horizon at 6,800-7,000 feet. On March 6, there were 17 wells producing from that horizon, that being the greatest mass development of such deep sands on the Gulf Coast. Three of those producing wells were drilled to below 7,000 feet and in addition three abandoned tests went to depths below that level.

Within the past several weeks Skelly Oil Co. has opened what looks like another deep producing field at Van Vleck in northern Matagorda County. The discovery well, No. 1 Cobb, was drilled to a total depth of 7,180 feet, plugged back to 7,076 feet, and initial tests have shown for a high pressure gasser. This well gauged a working pressure of 2,575 pounds.

Prospects at Pledger

At Pledger, northwestern Brazoria County, almost on the Matagorda County line, Danciger Oil & Refining Co. is developing a 6,800-6,900-foot horizon, which was proven for production in November, 1932, with a wet gasser at a total depth of 6,782 feet. Since then two additional such wells have been completed. In the course of development, one test, for geological information, was drilled to a total depth of 8,053 feet, and then plugged back for completion in the 6,800-foot sand. Characteristic of wells at Pledger is the unusually high working pressure and it generally is assumed that as soon as this pressure is

Records of Holes Drilled on the Texas and Louisiana Gulf Coast

9,000-Foot Holes

Well, field or district, county or parish—	Mo.-Year	Depth	Status—
Yount Lee Oil Co.'s No. 1 Boyt, Gum Island, Liberty	9-1933	9,865	Abandoned
Yount Lee Oil Co.'s No. 1 Plummer, Gum Isl., Chambers	1-1933	9,334	Abandoned
United N. & S. Dev. Co.'s No. 2 Stoddard, Buckeye, Matagorda	.....	9,257	Drilling
Union Sulphur Co.'s No. 762 fee, Sulphur, Calcasieu	4-1931	9,250	P.B. 5,080 ft.; prod.
Edwin M. Jones' No. 1-B Mitchell, Refugio, Refugio	6-1932	9,131	Abandoned

8,000-9,000-Foot Holes

Yount Lee Oil Co.'s No. 9 Hou.-Lat., Jennings, Acadia	7-1930	8,903	Abandoned
Gulf Refining Co.'s No. 1 Sweet Lake, Hays, Calcasieu	3-1934	8,900	Abandoned
Yount Lee Oil Co.'s No. 10 Hou-Lat., Jennings, Acadia	3-1932	8,762	P.B. 8,662 ft.; prod.
Texas Co.'s No. 5 Rayne heirs, Jennings, Acadia	8-1930	8,730	Abandoned
United N. & S. Dev. Co.'s No. 1 25, Buckeye, Matagorda	3-1934	8,585	Abandoned
Yount Lee Oil Co.'s No. 11 Hou.-Lat., Jennings, Acadia	2-1933	8,550	Abandoned
Humble O. & R. Co.'s No. 2 DeVilbiss, Roanoke, Jeff. Dav.	.....	8,423	Working
Yount Lee Oil Co.'s No. 1 La. Sulphur, Edgerly, Calcasieu	2-1934	8,410	Abandoned
Superior Oil Corp.'s No. 1 Hermandes, ——, Acadia	.....	8,646	Drilling
Union Sulphur Co.'s No. 1 Pure lease, Hackberry, Cameron	9-1932	8,363	Abandoned
Union Sulphur Co.'s No. 2 Pure lease, Hackberry, Cameron	1-1933	8,324	Abandoned
Quintana Oil Co.'s No. 1 Nelson, ——, Calcasieu	8-1933	8,269	Abandoned
Yount Lee Oil Co.'s No. 4 Crowley, Jennings, Acadia	11-1929	8,250	Abandoned
Benedum & Trees' No. 1 Foley, Humble, Harris	7-1930	8,181	Abandoned
Barnsdall Oil Co.'s No. 1 Williams, ——, Assumption	11-1933	8,155	Abandoned
Yount Lee Oil Co.'s No. 4 Chambers, Barb. Hill, Chambers	9-1929	8,150	Abandoned
Quintana Oil Co.'s No. 1 Great Southern, Pliant Lake, Fort Bend	12-1933	8,129	Abandoned
Humble O. & R. Co.'s No. 2 Pierce, Pledger, Matagorda	6-1933	8,115	Abandoned
L. L. Smith's No. 1 Moss-Heard, Refugio, Refugio	11-1930	8,114	Abandoned
Sinclair Prairie Oil Co.'s No. 31-Bryan, Damon, Brazoria	9-1933	8,112	Abandoned
Pure Oil Co.'s No. 1 Stewart, Louise, Wharton	12-1933	8,076	P.B. 5,983 ft.; prod.
Union Sulphur Co.'s No. 1 Barbee, Gillis, Calcasieu	.....	8,125	Drilling
Danciger O. & R. Co.'s No. 2 Hunt, Pledger, Brazoria	9-1933	8,053	P.B. 6,825 ft.; prod.
Pure Oil Co.'s No. 2 Southwest, Gueydan, Vermillion	12-1932	8,007	Abandoned
Hamill & Smith's No. 1 Faulk, Abbeyville, Vermillion	2-1934	8,000	Abandoned

7,500-8,000-Foot Holes

Union Sulphur Co.'s No. 1 Stout, Gillis, Calcasieu	10-1933	7,998	Abandoned
United N. & S. Dev. Co.'s No. 1 Stoddard, Buckeye, Matagorda	8-1932	7,951	P.B. 7,926 ft.; prod.
Union Sulphur Co.'s No. 1 Barbe, Hackberry, Cameron	.....	7,945	Drilling
United N. & S. Dev. Co.'s No. 1 Plotner, Buckeye, Matagorda	9-1933	7,919	P.B. 7,888 ft.; abandoned
United N. & S. Co.'s No. 1 St. L.B.M., Buckeye, Matagorda	3-1933	7,858	Prod.
Yount Lee Oil Co.'s No. 3 Moores Bluff, Esperson, Liberty	11-1930	7,877	P.B. 2,836 ft.; prod.
Yount Lee Oil Co.'s No. 1 Miller, Lockport, Calcasieu	11-1930	7,854	P.B. 6,706 ft.; prod.
Texas Co.'s No. 1 South Coast, Charenton, St. Marys	10-1930	7,851	Abandoned
Federal Oil Co.'s No. 1 Hebert, Hackberry, Cameron	9-1930	7,834	Abandoned
Magnolia Pet. Co.'s No. 2 Sweet Lake, Sw. Lake, Cameron	8-1931	7,714	Abandoned
Union Sulphur Co.'s No. 1 Farquahar, Lockport, Calcasieu	.....	7,702	Drilling
Texas Gulf Prod. Co.'s No. 2 Scott, Barb. Hill, Chambers	10-1930	7,697	Abandoned
Yount Lee Oil Co.'s No. 1 Starks, Johnsons Bay, Cameron	1-1930	7,680	Abandoned
Humble O. & R. Co.'s No. 1 McFaddin, McFaddin Beach, Jefferson	5-1931	7,663	Abandoned
Shell Pet. Corp.'s No. 1 Kratzler, Roanoke, Jeff Davis	.....	7,650	Drilling
Texas Co.'s No. 1 Ewing, Manvel, Brazoria	4-1931	7,648	Abandoned
Humble O. & R. Co.'s No. 1 Delaware Fur, Lafitte, Jeff Davis	11-1930	7,629	Abandoned
Rycade & Amerada's No. 2 Seaburn, Stratton, Brazoria	4-1931	7,624	Abandoned
Indep. O. & G. Co.'s No. 6 J. Reilly, Refugio, Refugio	10-1930	7,618	P.B. 3,600 ft.
Pure Oil Co.'s No. 1 Wilder, Louise, Wharton	3-1934	7,614	Abandoned
Smith & McDannald's No. 1 Rideway, Lake View, Wharton	10-1933	7,607	Abandoned
Shell Pet. Corp.'s No. 1 Hebert, Little Prairie, Vermillion	5-1933	7,606	Abandoned
General Crude Oil Co.'s No. 1-A Vadjak, Esperson, Liberty	11-1930	7,592	S.T. 7,386 ft.; abandoned

7,500-8,000-Foot Holes (Continued)

Well, field or district, county or parish—	Mo.-Year	Depth	Status—
Mills Bennett Prod. Co.'s No. 1 Riverside, ——, Acadia	3-1934	7,590	Abandoned
Magnolia Pet. Co.'s No. 1 Bowman, Iowa, Calcasieu	7-1933	7,590	Abandoned
Continental Oil Co.'s No. 1 Standard, ——, St. Martin	.....	7,560	Drilling
Texas Co.'s No. 1 Murdock, Fresno, Brazoria	1-1931	7,556	Abandoned
Gulf Prod. Co.'s No. 2-C Kirby, Cleveland, Liberty	.....	7,515	Drilling
Magnolia Pet. Co.'s No. 1 Sweet Lake, Sw. Lake, Cameron	10-1930	7,505	Abandoned
Yount Lee Oil Co.'s No. 1 Kirby, Barbers Hill, Cameron	10-1929	7,502	Abandoned

7,000-7,500-Foot Holes

Gulf Ref. Co.'s No. 12-A Irwin, Hackberry, Cameron	11-1933	7,490	Prod.
Pure Oil Co.'s No. 5 Yount Lee, Sweet Lake, Cameron	2-1932	7,456	Abandoned
Yount Lee Oil Co.'s No. 7 Hous.-Lat., Jennings, Acadia	1-1930	7,447	Prod.
Yount Lee Oil Co.'s No. 8 Hous.-Lat., Jennings, Acadia	6-1930	7,434	Prod.
Magnolia Pet. Co.'s No. 1 Martens, Tombail, Harris	6-1933	7,438	Abandoned
Magnolia Pet. Co.'s No. 1 LeBleu, Iowa, Calcasieu	1-1934	7,470	Abandoned
Humble O. & R. Co.'s No. 1 Long-Bell, Dry Creek, Beauregard	.....	7,404	Drilling
Gulf Prod. Co.'s No. 1-B Lockwood, Lockwood, Brazoria	1-1933	7,404	Abandoned
Quintana Oil Co.'s No. 1 McCormic, Nursery, Victoria	8-1933	7,400	Abandoned, gas 6,150 ft.
Pure Oil Co.'s No. 10 Yount Lee, Sweet Lake, Cameron	4-1931	7,387	Prod.
Yount Lee Oil Co.'s No. 13 Hous.-Lat., Jennings, Acadia	.....	7,375	Drilling
Gulf Prod. Co.'s No. 4-A McFaddin, Moss Bluff, Liberty	1-1932	7,375	Abandoned
Jack Schultz' No. 2 Todd, Cheek, Jefferson	5-1933	7,355	Abandoned
Pure Oil Co.'s No. 11 Yount Lee, Sweet Lake, Cameron	7-1933	7,350	Prod.
Republic Prod. Co.'s No. 1 Ben Andrews, Wiess Bluff, Hardin	12-1932	7,420	Abandoned
Gulf Prod. Co.'s No. 2-C Kirby, Cleveland, Liberty	.....	7,400	Drilling
Humble O. & R. Co.'s No. 1 Pierce, Pledger, Matagorda	2-1933	7,323	Abandoned
Gen. Crude Oil Co.'s No. 10 Moores, Esperson, Liberty	3-1934	4,614	Prod.
George W. Strake's No. 1 Fedigrew, Iowa, Jeff Davis	3-1934	7,348	Abandoned
Yount Lee Oil Co.'s No. 1 Simms, Jennings, Acadia	2-1930	7,319	Abandoned
Shell Pet. Corp.'s No. 1 Heizog, ——, Jefferson	10-1930	7,305	Abandoned
Gulf Ref. Co.'s No. 1 LeFort, Leesville, LaFourche	2-1934	7,300	Abandoned
Yount Lee Oil Co.'s No. 6 Hous.-Lat., Jennings, Acadia	6-1929	7,294	Prod.
Sun Oil Co.'s No. 1 Paggi, China, Jefferson	12-1933	7,277	Abandoned
Magnolia Pet. Co.'s No. 11 Bordages, Lockport, Calcasieu	.....	7,275	Drilling
Texas Co.'s No. 10-B State, Hackberry, Cameron	1933	7,272	Prod., D.D.
Humble O. & R. Co.'s No. 2 Bloecher, Tomball, Harris	11-1933	7,240	Abandoned
Shell Pet. Corp.'s No. 1 Marceaux, Mallard Bay, Cameron	7-1930	7,229	Abandoned
Sun Oil Co.'s No. 1 Peevey, Gist, Newton	11-1932	7,222	Abandoned
Empire Gas & Fuel Co.'s No. 1 Kuntze, San Felipe, Austin	5-1931	7,215	Abandoned
Gulf Ref. Co.'s No. 13 Industrial, Starks, Calcasieu	8-1929	7,207	Abandoned
Shell Pet. Corp.'s No. 1 Miller, Lockport, Calcasieu	10-1929	7,201	Abandoned
Barnsdall Oil Co.'s No. 1 Harang, ——, LaFourche	3-1934	7,195	Abandoned
Magnolia Pet. Co.'s No. 2 Willett, Iowa, Jeff Davis	10-1933	7,194	Abandoned
Skelly Oil Co.'s No. 1 Cobb, Van Vleck, Matagorda	.....	7,178	In process of completion
Texas Co.'s No. 22 State Lake Barre, Lake Barre, Terrebonne	2-1934	7,162	Abandoned
Pure Oil Co.'s No. 1 Kuntze, Louise, Wharton	1-1934	7,143	Prod.
Pure Oil Co.'s No. 1 Lancaster, Louise, Wharton	1-1934	7,142	Abandoned
Un. Sulphur Co.'s No. 1 Martha Moss, Lockport, Calcasieu	12-1930	7,119	Abandoned
Humble O. & R. Co.'s No. 4 Cameron, Cameron Meadows, Cameron	2-1934	7,100	Abandoned
Humble O. & R. Co.'s No. 1 Rosenkranz, Greens Bayou, Galveston	1-1933	7,119	Abandoned
Gulf Prod. Co.'s No. 1 Ezzell, Hankamer, Liberty	1-1931	7,095	Abandoned
Magnolia Pet. Co.'s No. 40-A Watkins, Lockport, Calcasieu	2-1934	7,078	Abnd.; sand at 6,875-90 ft.
Texas Co.'s No. 2 L.L.&E., Bay Junop, Terrebonne	2-1931	7,034	Abandoned
Humble O. & R. Co.'s No. 1 Breeden, Moss Bluff, Liberty	12-1930	7,064	Abandoned
Texas Co.'s No. 2 State, Bay Junop, Terrebonne	7-1931	7,034	Abandoned
Un. Sulphur Co.'s No. 2 Martha Moss, Lockport, Calcasieu	4-1932	7,030	Abandoned
Humble O. & R. Co.'s No. 1 Glass, Humble, Harris	11-1929	7,019	Abandoned
Naylor & DeCosta's No. 1 Naylor, Thompson, Fort Bend	10-1932	7,014	Abandoned
Shell Pet. Corp.'s No. 1 Stafford, Iowa, Jeff Davis	5-1933	7,021	P.B. 6,923 ft.; prod.
Shell Pet. Corp.'s No. 2 Stafford, Iowa, Jeff Davis	10-1933	7,021	P.B. 6,696 ft.; prod.
Harrison & Abercrombie's No. 1 Howe, Manvel, Brazoria	3-1934	7,003	Abandoned
Thompson et al's No. 1 Harrison, Crockett, Houston	3-1934	7,000	Abandoned

relieved sufficiently the field will become a prolific oil producer.

Prospects of deeper production than anything else yet proved on the coast have been shown lately in a deep test Humble Oil & Refining Co. has drilled at Roanoke in Jefferson Davis Parish, Louisiana. That well, at a total depth of 8,423 feet, swabbed some oil and water but failed to complete and now is being plugged back to test some of the various other sands found below 7,000 feet.

Roanoke is believed to be typical of the very deeply seated salt domes of the nonepiercement type which are expected to become the main source of production on the coast in the future. On the same prospect, a mile north of the Humble deep well, Shell Petroleum Corp. is putting down another test, which operators are expecting to drill at least to 8,500 or 9,000 feet. In this test a string of 9⅝-inch casing was run to 7,527 feet, and as this is written the bottom of hole is below 7,600 feet.

To Drill Deeper

Additional deep production also has been developed at Sweet Lake and East Hackberry. The former field, where a 5,897-foot well in 1926 held the coastal depth record, now has production from sands as deep as 7,400 feet, and continued development is under way there not only to prove that horizon further but to drill to lower depths if necessary. At East Hackberry, a new production depth record for coastal Louisiana was set within the past several weeks when a well drilled by Union Sulphur Co. on the northwest flank was completed as a 500-bbl. producer at 7,598 feet. That well since has been killed and is being drilled deeper below 7,955 feet. Other production in the same area is obtained from a 6,000-foot horizon and last year two tests were drilled to a sand found at 8,300 feet, one hole going to 8,363 feet and the other to 8,334 feet, where they encountered oil showings giving promise of commercial production. Mechanical difficulties prevented a test of this sand and the holes were abandoned but additional tests are due to be drilled to the horizon.

On the northeast flank of East Hackberry, production has been proved in a 7,300-7,500-foot horizon and development of this is under way. The first deep well was Texas Co.'s No. 11-B State, located out in Calcasieu Lake, completed at 7,292 feet. This was offset by Gulf Refining Co.'s No. 12-B Irwin, which was completed in sand at 7,475 feet. The former since has quit flowing and is to be deepened. Gulf and Texas companies each has an additional deep test drilling.

At Louise, Wharton County, Texas, where a deep development program, started early in 1933, is still being carried on, Pure Oil Co. has obtained production in sands at 6,000 feet, 7,100 feet and 7,400 feet. The discovery and first well drilled in that field was carried to a total depth of 8,076 feet where heaving shale and a stuck drill stem prevented further hole. It was plugged back and completed at 5,983 feet. At the total depth of 8,076 feet it blew out and ran out of control for a time and thus led the way for later development down to that horizon.

Development of Deep Drilling

Deep drilling in its present sense on the coast has come as a result of a number of successive stages in development. The original production was entirely from the cap rock and overlying sands of shallow domes, such as at Spindletop, Sour Lake, Batson, Humble and a few others. The next state of development came with finding production in the shallower Miocene sands flanking the various domes. Following a period of play in those horizons, the depeer flanking Oligocene sands were discovered, marking the opening of another era in coastal production development. Later, with the increased efficiency of geophysics, there came the discovery of deeper domes, such as Sugarland, with their blanket overlying sands of unpierced Oligocene and Micoene time.

That stage has been followed by the drilling of the still deeper Jackson sand horizons flanking many of the older domes, the development of the Cockfield sand fields, such as Conroe, Tomball, etc., along what now is know as the "Conroe trend" just inland from the orthodox salt dome district, and the exploration for and proving up of that type of nonpiercement dome or structure found at very great depths. Thompson, Manvel, Pledger, Buckeye, Van Vleck, all in Texas, and Iowa, Roanoke and others in Louisiana, are all typical of the latter type. At Thompson and Manvel main production so far has been at

Another big drilling outfit typical of the steam powered type now being used in the Gulf Coast deep drilling exploration. This is Mills Bennett Production Co.'s No. 1 Riverside, located on a geophysical block north of the old Jennings field, Acadia Parish, La. It only recently has been abandoned at a total depth of 7,590 feet due to collapse of surface casing

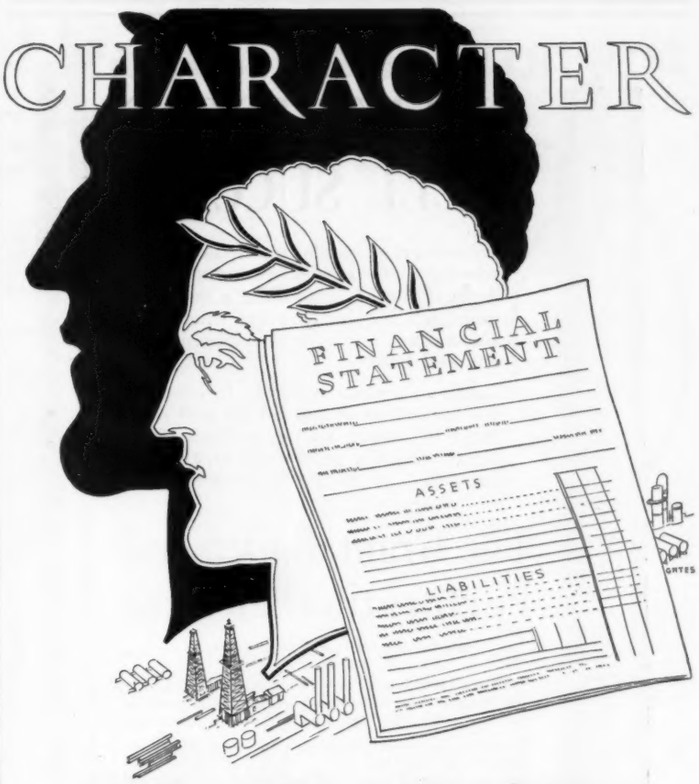
depths above 5,600 feet (5,300 feet at Thompson) but all these fields are producing from the same general horizon, that of the Marginulina zone of the Oligocene. Due to the dipping off and also thickening of the Miocene beds in coastal Louisiana those prospects can be expected to be found at considerably lower depths in that part of the coast than in Texas.

With the exception of the Cockfield sand and Conroe trend play across Texas and now going on in Louisiana, the proving up of these very deeply seated domes and producing horizons has been perhaps the most important devlopment on the Gulf Coast. Such prospects were not readily recognized or thought of in earlier geophysical exploration and interpretation but with the shallower domes believed to have been fairly well checked out, modern geophysical efforts have been directed largely at locating such types, and the findings have been responsible for the drilling of many of the present deeper wildcats.

Sweet Lake Typical

Typical of the deep wildcats drilled in an effort to prove up one of these very deeply seated salt dome prospects was Gulf Refining Co.'s No. 1 Sweet Lake, located on the Hays prospect, in Calcasieu Parish. This test, however, was abandoned, during March after going to a total depth of 8,900 feet. Union Sulphur Co. has another such prospect in the Gillis area of Calcasieu Parish, where a second test now is being put down. As this is written it still was going at 8,135 feet. The first hole also went to 8,000 feet. Mills Bennett Pro-

(Continued on Page 62)



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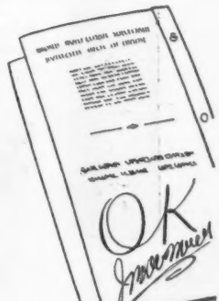

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Machinery and Tools of Heaviest and Strongest Types Being Used in Gulf Coast Deep Tests

HOUSTON, Tex., Apr. 9.—The wildcat drilling activity which has been going on along the Gulf Coast for several months in exploration for possible additional deeply seated salt domes and lower producing horizons has called into use one of the most impressive assemblages of oil field equipment ever brought together at one time in this district.

The problems and difficulties faced by operators in drilling at greatly increased depths and under conditions generally different than previously experienced in shallower and proven areas have placed a need for machinery and tools of the heaviest, strongest and most modern types.

Three factors enter into the development of deep horizens, namely, time, cost, and hazard. Anything and everything that can be put into service or operation to reduce these elements to a minimum is compulsory in modern drilling, and that is what coastal operators apparently have sought to provide in the present exploration program.

It now seems certain with the steady elimination of the shallower fields and prospects through years of development that the major part of the future oil reserves of the Gulf Coast will have to come from the proving of the deep sand horizons. Sedimentary formations estimated as much as 25,000 to 30,000 feet in thickness offer almost unlimited possibilities for deep production. The extent to which these depositions will be penetrated in search for new oil reserves is limited only by the drilling equipment itself.

From this angle, or in other words, the future of coastal drilling activity rests with the manufacturers of drilling equipment and their ability to supply machinery and facilities capable of reaching farther and farther into the earth's surface. To what depths present equipment can go safely remains to be seen but it is confidently expected the day will not be far in the future when holes to 10,000 feet will be common and tests to 12,000 feet, and even 15,000 feet, will be in order.

Peculiar Problems

Drilling to great depths on the Gulf Coast presents its own peculiar problems. In the first place, hardly any two tests find the same conditions and consequently no set practices can be prescribed and invariably the unexpected always can be expected. Loose and unconsolidated formations ordinarily found particularly in the upper horizons make for easy digging but in turn are treacherous in the maintenance of hole and walls and in the handling of high gas pressures. Heaving shale, encountered quite commonly, remains a barrier to deep exploration which must be overcome. The high gas pressures, oftentimes run into unexpectedly, seem characteristic of the lower producing horizons and create unusual blowout hazards. Modern equipment and methods must overcome all these problems, and more, in the practical development of deep reserves.

Typical of the pressures which may have to be dealt with in some of the expected new deeply seated fields are those at Pledger, Brazoria County, which is being proved up by Danciger Oil & Refining Co. The discovery well, a wet gasser, completed a couple of years ago, has maintained a working pressure of above 2,600 pounds. Two additional wells of the same type have been brought in since then. The control of such wells constitutes a real test on the well connections and pipe and only the strongest of such equipment can be used in such development.

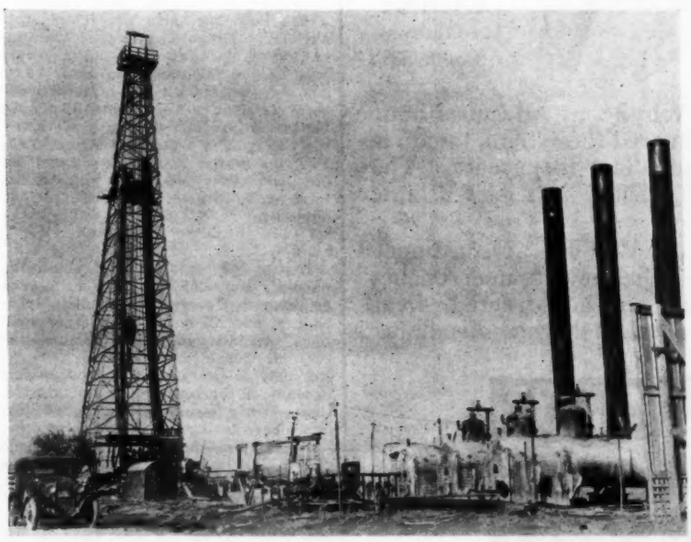
Similar high pressure has been experienced in the recent completion by Skelly Oil Co. of a wildcat on another deeply seated geophysical prospect at Van Vleck, 10 miles southwest of Pledger, in Matagorda County. There, a working pressure of 2,575 pounds was recorded. Control of high pressures also has played an important part in the development of Iowa, on the Calcasieu-Jefferson Davis Parish line, the third largest field on the Gulf Coast at this time and one which is producing from a 6,900-7,000-foot horizon.

Of particular note in connection with the deep drilling outfits which have been in operation on the coast is the representative nature of the equipment and machinery. There is hardly an important manufacturer, either local or otherwise, who does not have at least some part to play on one or more of the tests under way. The great variance of conditions under which the different tests, scattered all over the coast, are drilling has seen to that because it has been found that certain kinds of equipment and methods are applicable in some instances while others are more suitable elsewhere.

One of the four crews (first day tour) of Carl B. King Drilling Co., which drilled Mills Bennett Production Co.'s No. 1 Riverside, Acadia Parish, one of deep wildcats in the Gulf Coast deep drilling play. Left to right are: David L. Harlin, driller; C. Rodgers, Dick Bryson, C. E. Goodman and Joe Gillespey

The completeness of all the outfits, the extra massiveness and strength and size of the set-ups, the precautions provided to insure successful completion of all the operations, and the attention paid even to the smaller piece or detail have been conspicuous on nearly all the tests drilled or drilling. No necessary expense has been spared by any of the operating companies to furnish what each considered the best and most efficient equipment or material for the respective tests.

Various types of set-ups are being used in the present drilling program, including both steam powered and electric rigs. Typical of the electric rigs is Humble Oil & Refining Co.'s No. 2 DeVilbiss at Roanoke, Jefferson Davis Parish, Louisiana, power for which is being furnished by Gulf States Utilities Co. The Humble set-up is one of the largest at this time on the Gulf Coast, and includes a 165-foot steel derrick. This test has been drilled to a total depth of 8,423 feet, where in sand showing oil a number of unsuccessful attempts have been made to bring it in as a producer. This is believed to be the deepest hole ever drilled with an electric rig. Except for one small noncommercial well at Jennings producing from a depth of 8,662 feet, this would have been the deepest production on the Gulf Coast. It lately has been plugged back to shallower sands.



United North & South Development Co.'s No. 2 Stoddard (No. 1 Unit 6), Buckeye, Matagorda County, Texas. The deepest commercial production on the Gulf Coast is in this field, coming from a 7,900-foot horizon. The test, a wildcat in nature, is the deepest well now drilling on the coast with a total depth of 9,257 feet. Equipment on this outfit includes the biggest rig, engines, pumps in use on the coast. P. L. McQuirt is in charge of operations at Buckeye

On the same prospect and located just a mile north of the Humble test, Shell Petroleum Corp. is employing an outfit of a different type, that of a large steam-driven rig, one of the most elaborate set-ups of its kind on the coast. The latter is expected to be drilled at least to 8,500 or 9,000 feet. As this is written, it is drilling below 7,600 feet after having run a string of 9⅝-inch casing to 7,527 feet to protect hole. This is a record pipe setting job for the coast.

Humble Oil & Refining Co. has another 165-foot derrick in use on a wildcat it is drilling in the Dry Creek area in Beauregard Parish, but is using a steam-driven rig on it in contrast to the electric rig at Roanoke. The Dry Creek test is the first major test of the "Conroe trend" in southern Louisiana, and while no especially deep test is expected the type of equipment and completeness is comparable to that of the deep tests under way in the salt dome district.

The use of 165-foot derricks by Humble Oil & Refining Co. has facilitated the handling of fourbles of 30-foot joints of pipe, which means considerable saving in time and trouble in the drilling of deep tests. Such derricks have been used before on a few other tests drilled by that company at several places on the coast.

The prevailing derrick in all drilling under way is the regular 122-foot structure. Such a derrick is of adequate size to handle the load, the principal advantage in the larger derrick being the increased space for pipe stands. Both wooden and steel derricks are in service. Of particular interest, however, is the fact that nearly all are relegged to provide additional strength required of them to take care of the extreme loads placed upon them by the long strings of pipe and extra weighty equipment.

Concrete foundations and steel substructure are customary for most of the deep tests. However, some fairly deep tests have been taken down without trouble without the extra strength and stability provided in such construction. In some of the locations, especially those in water, other foundations are almost compulsory. For instance, in the deep drilling operations of Pure Oil Co. at Sweet Lake, which are located in 7 to 10-foot lake water, the drilling outfits are set up on matting foundations, consisting of timbers laid down in the water.

More Power

Increased depths of drilling and the consequent greater loads which must be handled have necessitated the availability of more power. While in ordinary operations of the past the 70-horsepower boilers have been adequate, batteries of three boilers of 100 to 125 horsepower usually are set up for the steam-driven rigs. Also, it might be well to mention

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that whereas boilers used to be just set up out in the open, attention now is being given to protection of equipment, and generally boilers on present-day operations are enclosed in boiler houses.

With the greater amount of power available have come larger and heavier engines, bigger mud pumps, massive and elaborate drawworks. In fact, the largest and most modern of such equipment can be found on most all the deep drilling outfits now on the Gulf Coast. Mud pumps now range from sizes 12x6x16 to 16x7½x18 ordinarily. Twin engines of 14x14 size are customary.

The large electric rig used by Humble Oil & Refining Co. is powered by a 200-horsepower motor on the drawworks with two 150-horsepower motors for the pumps. As a standby for the drawworks in the event of any electric power failure or need of additional power there is a 125-horsepower gasoline engine. A 450-pound pressure rotary pump, powered by a 10-horsepower totally enclosed motor also is in service to operate the water-controlled blowout preventer. Another 40-horsepower motor operates the wire line core drilling reel. Power is furnished direct from a high-line and is stepped down at the location from 33,000 volts to 440 volts.

Three and four-speed drawworks are the general type. Practically all of these are chain driven. There is only one shaft drive now on the Gulf Coast, that being Texas Co.'s big outfit at McFaddin in Victoria County. The size of traveling and crown blocks also plays an important part in providing capacity and safety. The former generally are of the 72-inch three or four-sheave type with crown blocks having four or five sheaves, respectively. The use of the larger blocks with the greater number of sheaves has been more adaptable, these being strung with eight or nine lines, depending on how strung.

Larger Pipe

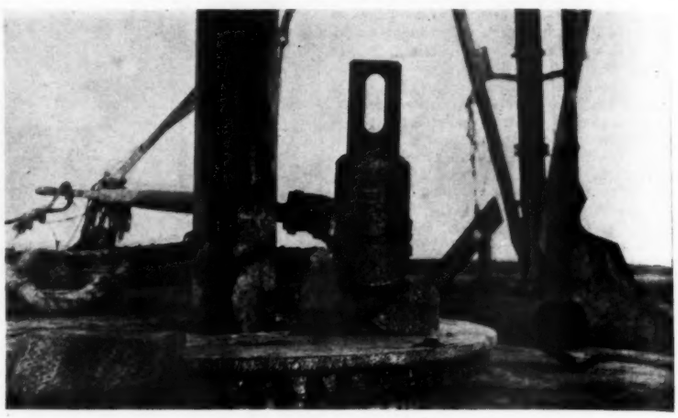
Due to the greater size of pipe being handled, some of the largest rotaries manufactured are necessary, these being 26-inch and 27-inch. The larger drill pipe, ordinarily 6-inch, minimizes the twist-off hazard on such long strings. Not only is the pipe larger but it also is made of the best material obtainable. Consequently few of the deep tests drilled lately have been delayed by fishing jobs.

This deep drilling exploration has made almost imperative the use of wire line coring, and conspicuous is the fact that virtually all these deep tests have been furnished with equipment for that purpose. The saving in time and cost of taking cores through the drill stem without the necessity of pulling pipe, is important in any drilling but the greater the depth the more vital becomes the need for this saving.

Value of Coring

The value of coring from a geological standpoint is readily recognized in rotary drilling and is compulsory in modern exploration particularly in wildcat territory and in previously undrilled horizons. It frequently is stated that every well on the Gulf Coast is a wildcat and the truth of this is not greatly exaggerated considering the irregularity and lenticular nature of the horizons and the lack of definite general correlation and indefiniteness of marker formations.

Conventional methods of coring have necessitated two round trips with the pipe, first, coming out of the hole for the core barrel and going back in for the core, and second, coming out with the core and going back in with the drilling bit. It has been estimated conservatively that an average of one hour is required for a round trip with the pipe for each 1,000 feet of depth. Thus, for a 7,000-foot hole, seven hours would be consumed in a round trip; for an 8,000-foot hole, eight hours, and for a 9,000-foot hole, nine hours. Figuring two round trips for each core, that time must be doubled and that does not include time out for changing bits or other delays incidental to coming out of the hole. Conservatively for the deeper holes 24 hours would be lost in taking a single core.



Type of collapsible blade drilling bit used on some of the Gulf Coast deep tests. The bit, in the picture was supplied by Reed Roller Bit Co. The bit is run in and out through the drill pipe by wire line, eliminating much pulling of pipe, thereby saving considerable cost and time in drilling deep holes

Time lost in actual drilling is the equivalent of money lost, and the deeper the drilling the more this is emphasized. The various operators figure the time cost of their rigs from $8 to $12 an hour, from which can be estimated easily the heavy cost of taking cores by the conventional methods.

Wire Line Method

In contrast to this is the wire line method of taking a core and which is facilitating the deep drilling exploration now under way. The amount of time consumed in coring by this method is indicated in the following table which is representative, the figures being the averages based on the record of a large number of wells:

Depth (ft.)	Time (min.)
0-2,000	19
1,000-2,000	27
2,000-3,000	33
3,000-4,000	41
4,000-5,000	50
5,000-6,000	60
6,000-7,000	70
7,000-8,000	80
8,000 and over	90

The saving in coring time by the wire line method as contrasted to the conventional coring can be appreciated in deep drilling by a comparison of the following time required for taking a core: On 6,000 to 7,000-foot holes, 70 minutes as against 12 hours and over; on 7,000 to 8,000-foot holes, 80 minutes as against 14 hours and over, and on 8,000-foot holes and deeper, 90 minutes as against 16 to 24 hours.

Not only does this enable a very material saving in time cost, an extremely important factor in the efforts of operators to reduce expenditures to minimum,

but also there is a material saving in equipment. The strain and wear and tear imposed upon pumps, engines, drilling line, etc., in pulling pipe invokes a tremendous depreciation.

Operators have utilized wire line coring in this deep exploration not only as a means of lowering actual drilling and coring costs but also with a view toward minimizing blowout hazards. It is known the majority of blowouts occur when pipe is being pulled. The fewer the times pipe is pulled the less the danger of blowout. Pulling pipe also has a tendency to weaken the mud in the hole and also to tear down walls, both of which factors must be considered in deep drilling. In heaving formations which must be conquered it also is desirable not to pull pipe any oftener than actually necessary.

From a geological standpoint wire line coring is being adopted in deep drilling to facilitate coring so that all the information possible may be obtained concerning the deeper horizons. The effort, time and cost involved in the conventional coring have a tendency to discourage the taking of cores. No driller likes to come out of the hole and there might be many times in the course of drilling at low depths that he might be inclined to pass up a break without coring. Wire line coring is enabling operators to make an almost 100 per cent core record of their holes.

Saving of Time

The amount of coring being done is one of the features of the present exploration. For instance, in one wildcat, Mills Bennett Production Co.'s No. 1 Riverside, located on a geophysical block north of the old Jennings Field in Acadia Parish, and drilled to a total depth of 7,590 feet, 277 cores were taken from about 2,000 feet on down. Other tests have records equally or nearly as complete.

Saving of time has a particular bearing on the deep drilling under way not only from an actual drilling cost standpoint but also in regard to the desire of operators to prove up the various prospective reserves without delay so that they might be guided by the information revealed in later operations.

The deepest producer (non-commercial) on the Gulf Coast. This is Yount Lee Oil Co.'s No. 10 Housierre-Latrielle at Evangeline (Jennings), La., completed in March, 1932. This well drilled to a total depth of 8,762 feet and plugged back to sand at 8,662 feet. It makes a head of about 10 bbls. about once a week. Operators are of the opinion that the hole never has been cleaned as there was no swab line long enough for the depth of the hole

Much of what has been stated concerning the saving of time and cost and elimination of hazard by wire line coring is applicable also to drilling with wire line, collapsible blade bits, which practice is being followed on a number of the deeper tests which have been put down or which are under way now on the coast.

The principal of operation in wire line bits for drilling and wire line coring is the same in that it elminates the necessity of pulling pipe for changing bits. The collapsible blade bits are lowered and raised through the drill pipe by wire line. Consequently the only reason for pulling pipe at any time is for occasional inspection of the pipe or the drilling of rock bit formations. The saving of time and cost in this also has been an important factor in the drilling of a number of these tests.

Record of Test

It has been estimated that the saving in many of these deep tests has been from 30 to 50 per cent as against the conventional methods of drilling and coring. Typical of this is the record made by a test drilled by one of the major companies which was drilled and cored from 2,238 feet to 5,800 feet by 6⅝x12¼-inch wire line bit, which follows:

Number of feet drilled	3,562
Number of bits used	83
Average footage per bit	42.9
Actual drilling time (hours)	442.75
Average drilling speed per hour	8.05
Aver. time of bit changing (min.)	50

Total drilling time:	Hrs.	Min.
Bit changing	70	
Round trips	47	30
Drilling time	442	30
Total hours	560	

Number of cores attempted	134
Number of cores recovered	125
Number of cores missed	9
Total coring time	165
Average coring time	1:14
Total time on well	*725

*30.2 days.

Cost of Operation

(Assuming cost of rig at $10 per hour, exclusive of repairs to rig and drilling line, and with lost time due to causes other than wire line bit not considered):

725 hours at $10		$7,250.00
67 sets new blades at $36.	$2,412.00	
16 sets rebuilt blades at $24.25	388.00	
Repairs to wire line bit equipment	171.23	
Extra parts used	137.20	3,108.43
Drilling line wear (six round trips at $10)		60.00
Total cost of operations, drilling and coring		$10,418.43
Cost per foot, approx.		$2.92

The following is an estimate of what the same drilling and coring would have cost by conventional methods, based on continuous coring (the most economical method) and assuming total of 178 cores of 20 feet. Total drilling time required (178 round trips at 12 hours) 2,136 hours:

2,136 hours at $10	$21,360.00
89 core cutter heads at $28.08 (redressing)	2,499.12
18 cutter bodies repaired at $31.	1,178.00
3 drilling lines ($400 each)	1,200.00
Total estimated cost	$26,237.12
Cost per foot approximately	$7.65

In each illustration the cost of blades and drilling line is high, based on present quotations.

The use of wire line equipment for drilling with collapsible blade bits has been made possible only by the adoption of full, or open, hole tool joints. The latter, however, have other very important parts to play in facilitating the deep drilling on the coast in that their use results in a decided reduction in fluid friction in the drill pipe, permitting the circulation of a larger volume of fluid at a higher effective pressure at the bit.

Several Advantages

In drilling at great depths, this point means much in lessening of the strain on the pumps, lowering power requirements, making faster and easier hole and affording a greater insurance against the possibility of hole wall troubles or blowouts. The advantage in the use of full hole tool joints as against the regular or standard A.P.I. joints is shown in a comparison of two deep tests, both drilling around the same depth at 6,300 feet and both having the same size pumps, 14x7¼x18. With each having a steam pressures of 250 pounds, the well drilling with regular tool joints required a pump pressure of 800 pounds to circulate 296 gallons of fluid per minute

(Continued on Page 62)

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High Pressures With Important Gas Production Result in New Era of Coastal Development

By NEIL WILLIAMS
Gulf Coast Bureau, The Oil and Gas Journal

HOUSTON, Tex., Apr. 9.—Exceptionally high pressures which are being encountered in the exploration and development of some of the fields associated with what are believed to be very deeply seated nonpiercement salt domes again have been called to attention with the proving up of the Van Vleck prospect in northern Matagorda County, Texas, by the Skelly Oil Co.

The discovery well, No. 1 Cobb, M. Cummings Survey, was brought in March 18 from a deep sand with bottom at 7,076 feet. Its completion was characterized by a working pressure of 2,575 pounds through a three-eighths inch choke. Washed only 1 hour and 45 minutes, the well kicked off and cleaned itself, quickly building up an equalized pressure of 2,700 pounds.

That pressure was handled without mishap. In anticipation of such conditions, the well had been equipped with heavy 6,000-pound-test Christmas tree fittings capable of meeting most any emergency and consequently the operators experienced very little difficulty in controlling the well.

The well was opened for three hours, first on quarter-inch chokes, and later on a three-eighths inch choke, and flowed 5 bbls. of distillate an hour and made at the rate of 7,800,000 feet of gas daily. The distillate, at first water white, turned gradually darker, and when the well was closed in it was brownish in color. The gravity is 57 A.P.I., but this ran as high as 64.

Trouble experienced with the lines and connections freezing up, and the 50 per cent separation effected in the single separator probably will result in an attempt being made to set a bottom hole choke to correct the situation.

Completion of the well marks another addition to the ranks of Gulf Coast producing fields and also climaxes Skelly Oil Co.'s first venture of its own in wildcatting on the coast. This company has producing holdings at Conroe and Livingston but these were acquired in proven territory. The Van Vleck well was drilled under contract by Rutherford Drilling Co. (Pat Rutherford).

Nonpiercement Type

Van Vleck, judging from the discovery well and other indications, is typical of the deeply seated nonpiercement salt dome type of fields, among which are: Pledger, in the northwestern corner of Brazoria County; Buckeye, in central Matagorda County; Iowa, on the Calcasieu-Jefferson Davis Parish line, Louisiana; Manvel, Brazoria County; Thompson, Fort Bend County; Sugarland, Fort Bend County, and a number of others. Main production in all these is from blanket sands in the same general horizon, originally designated as being in the Marginulina zone of the Oligocene, although many paleontologists now are calling these sands Frio.

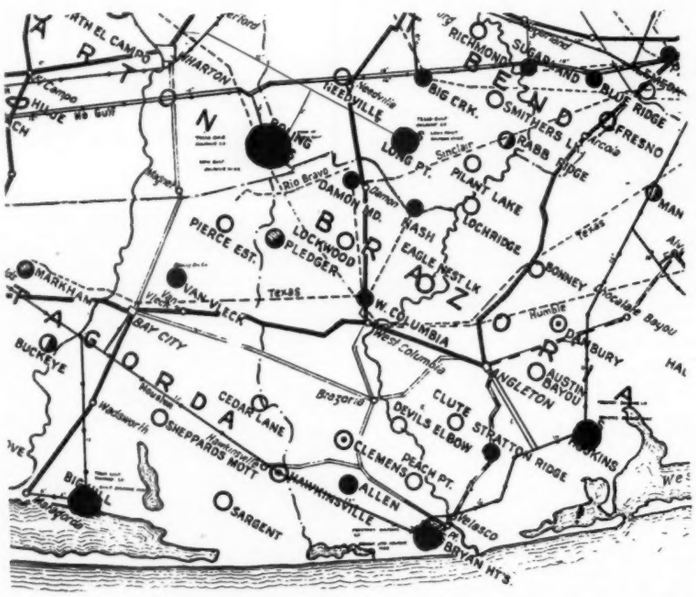
Wherever this horizon is in the stratigraphical lineup, the sands represent an unusually uniform type of development with more or less prolific and consistent production. The exploitation of this horizon as a major Gulf Coast play received its inception with the Sugarland Field, opened in 1928, and later with the discovery and development of other fields, more prominent of which are Thompson, Manvel and Iowa, the possibilities became more generally recognized.

Sugarland, where the sand is at 3,600 feet, and even Thompson, where the pay is around 5,200-5,300 feet, and Manvel at 5,100 feet and also 5,600 feet, are of the more shallow so-called deeply seated domes in contrast to Iowa, Pledger, Buckeye, Van Vleck and other more recently sought after prospects at which the same producing horizon is expected only at depths of 7,000 feet and below.

featured by high pressures, has been proved up as a major producer of oil, the third largest at this time on the Gulf Coast.

Pledger and Van Vleck

Pledger and Van Vleck apparently are



Map showing relation of Van Vleck area to other active sections and fields of the Texas Gulf Coast

It is in the latter group, particularly Iowa, Pledger and Van Vleck, that the exceptionally high pressures have been encountered and at Pledger and Van Vleck a type of development still more specific has been brought to light, namely very high pressure gas wells with a yield of light gravity brown colored distillate. Iowa, on the other hand, although identical in their physical characteristics although on neither has there been sufficient development to reveal much information as to what may be expected from them. That each will prove up an important oil field when the exceedingly high pressures are relieved sufficiently seems to be general opinion. At least the high pressures with a yield of colored distillate is suggestive of oil production from the horizon or indicative of structural conditions which are conducive to the production of oil from other sands there or somewhere in the district.

These two fields are only 10 miles apart. Pledger, being in the northwestern corner of Brazoria County, is just across the line from Matagorda County. The Van Vleck well is located westward and a little south of that field and of peculiar note is on a direct line with the Buckeye Field, some 15 miles or so farther southwest in Matagorda County. Whether there is any particular explanation for this alignment of these three fields of the same general type remains to be seen.

Pledger is being developed by Danciger Oil & Refining Co. and to date there are three wells, all of the same kind (wet gassers) and producing from the sand at 6,800-6,900 feet. The discovery well was completed late in 1932 with a working pressure of 2,675 pounds and although the well has been producing steadily since then there has been no material decline in the pressure.

The Skelly well is the first for Van Vleck. Its pressure of 2,575 pounds and that of 2,675 pounds at Pledger are the highest known working pressures ever recorded in this section, it is believed here. The inconsistency of the fact that the record pressures should be encountered on the Gulf Coast is that this district until recent years has been marked by the absence of any important gas production, and now with the development of important gas reserves a new era is being ushered into coastal development.

Buckeye in Line

The Buckeye Field, mentioned as being in direct line with Pledger and Van Vleck, is being developed by United North & South Development Co. As yet no particularly unusual pressures have been encountered although an oil field is being proved up in a 7,900-foot horizon, the same horizon found at Pledger and Van Vleck around 7,000 feet.

A comparison of the geological and sand conditions in producing horizons of the three fields reveals that the sand section at Van Vleck is lower in the horizon than at Pledger, and in turn the same section is still lower in the horizon at Buckeye than at Van Vleck. Based on the top of the Marginulina, the only definite marker above the producing horizon, the interval to the top of the sand section at Pledger is approximately 350 feet. At Van Vleck the interval is increased to around 590 feet while at Buckeye the same interval is 765 feet. The significance of this, however, is not definitely determined. It is believed by geologists for Skelly Oil Co. that Van Vleck manifests a slightly higher uplift than Pledger, it being considered as a little down dip from the latter field. On the other hand, there is very little to go on in determining this.

Correlation on the top of the Marginulina of the discovery wells of the three fields gives the following information:

Field—	Elevation (feet)	Top Marginulina—Actual depth (feet)	Top Marginulina—Subsea depth (feet)
Pledger	59	6,540	6,481
Van Vleck	66	6,535	6,469
Buckeye	41	7,073	7,032

Other markers in the Van Vleck well were the top of the Discorbis at 5,767 feet actual and the top of the Heterostegina at 6,190 feet actual.

The latter well is producing from a

Gulf Coast Water Shipments During Month of February, 1934

Company and terminal—	Crude—Coastwise	Crude—Export	Refined—Coastwise	Refined—Export	Total
Atlantic Pipe Line Co.:					
Atreco	1,345,394.37	361,898.05	.....	.....	2,007,292.42
Texas City	234,134.61	.....	7,364.40	.....	241,499.01
Harbor Island	342,957.81	.....	.....	.....	342,957.81
Gulf Refining Co:					
Port Arthur	306,227.56	.....	1,644,737.34	11,918.66	1,962,883.56
Humble Oil & Refining Co.:					
Baytown	743,386.00	.....	2,287,198.41	523,801.39	3,554,385.80
Harbor Island	1,512,792.00	.....	.....	.....	1,512,792.00
Ingleside	94,954.00	.....	.....	.....	94,954.00
Texas City	192,585.00	.....	.....	.....	192,954.00
Magnolia Petroleum Co.:					
Beaumont	606,244.18	.....	1,279,489.45	.....	1,885,733.63
Pure Oil Co.:					
Smiths Bluff	508,964.00	.....	455,508.00	.....	964,372.00
Shell Petroleum Co.:*					
Houston	238,903.74	.....	942,691.63	.....	1,181,595.37
Norco	.....	.....	375,424.67	.....	375,424.67
Standard Oil Co. of La.:					
Baton Rouge	147,696.00	.....	1,629,452.00	496,844.00	2,273,992.00
Sun Pipe Line:					
Sabine Pass and Sun	1,525,690.00	.....	.....	.....	1,525,690.00
Texas Co.:					
Port Arthur	998,422.00	596,599.00	1,660,491.00	832,587.00	4,088,099.00
Miscellaneous:					
Houston	1,675,404.26	161,635.00	504,628.96	578,817.61	2,920,485.83
Total February	10,473,755.53	1,120,132.05	10,786,985.86	2,443,968.66	25,124,742.10
Total January	11,621,741.38	539,546.33	12,600,739.57	2,424,491.92	27,186,518.20
Difference	1,147,985.85	580,586.72	1,813,753.71	18,476.74	2,061,776.10

Petroleum Coke

	Coastwise	Crude (long tons)	Total (long tons)
*Shell Pet. Co., Houston	.....	47.00	47.00

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sand known to be at least 19 feet in thickness. An additional 10 feet of formation taken in is believed to be sand but on this there was poor core recovery. In the setting from bottom up there is 23 feet of blank pipe and shoe, 31 feet of .008 L.&B. screen, 15x2 Brown collapsible wall packer, and 93 feet of blank pipe with packer. This was run in on bottom of a full string of 2½-inch tubing.

The hole originally was drilled to a total depth of 7,178 feet and then plugged back and cleaned to its present depth of 7,076 feet. In plugging back, three distinctly separate sands were cut off, one in particular at 7,093-7,102 feet showing good saturation.

Well Record

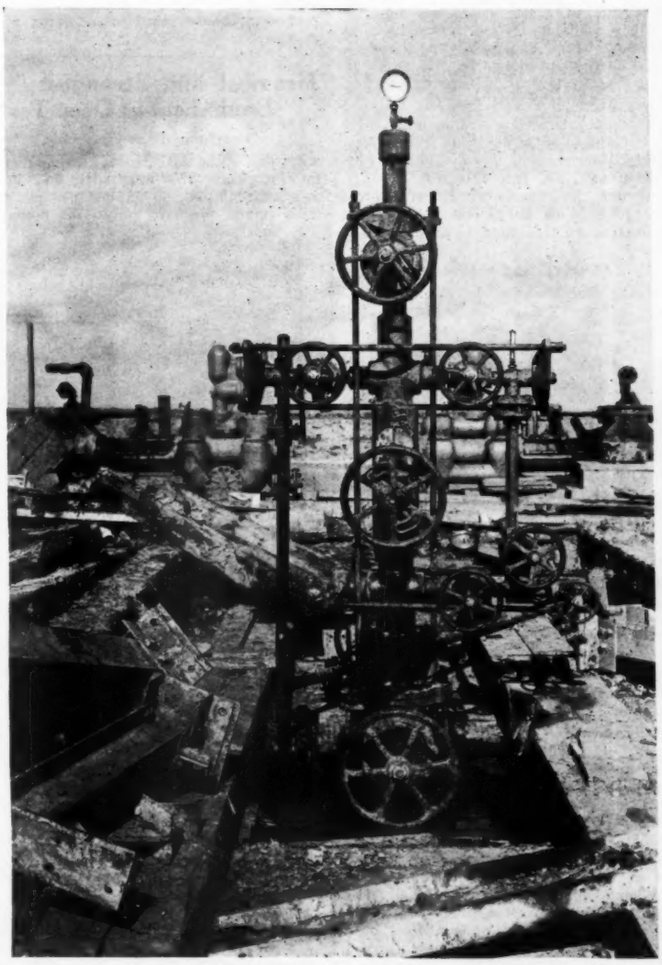
The record of the well shows the surface pipe, consisting of 13⅜-inch, 48-pound pipe, cemented at 1,387 feet with 325 sacks. The 7-inch flow string at 6,992 feet, which is 26-pound pipe, was cemented with 449 sacks. Drilling was started December 27 and the well completed March 18, a period of 81 days. This includes plug-back time and a more than normal delay in bringing the well in after cementing casing. No unusual difficulties were encountered during the drilling and of especial interest was the exceptionally straight hole which was indicated by surveys. Derrick and rig already have been torn down in preparation for drilling a second test.

In the proving up of Van Vleck, Skelly Oil Co. has a three-quarter interest in a block of 7,400 acres and a half interest in 2,000 acres of royalty. The block was taken on the strength of reflection dip shooting which was done last July by the Independent Exploration Co. for E. DeGolyer and J. W. Colvin, who got the block together. The latter retain an eighth interest each in the leasehold and a quarter interest in the royalty.

Van Vleck, however, has been recognized as a prospect for a number of years. In 1926 Gulf Production Co. in looking for shallow dome formation and sulphur drilled a test to 2,204 feet about a mile east of the present Skelly well. A little over a mile southeast another test, drilled to a total depth of 4,373 feet, was junked and abandoned only the past February, this being put down by H. E. Clark and associates. The latter was started in 1932 but was shut down for a long period.

Instrumental in getting the Skelly Oil Co. interested in the development of Van Vleck was Joseph E. Morero, chief geologist of the company in the Gulf Coast division. Supervision of the drilling development is directly in the hands of Harold Decker, drilling and production superintendent for the Gulf Coast.

Proving up of this field is significant of the new era in the exploration and development on the Gulf Coast, which has been characterized by the bringing to light of these deep pay horizons overlying in blanket form what are believed to be deeply seated salt domes. In earlier days of geophysical exploration these deeply seated domes puzzled the interpreters of instrument findings largely because domes were thought of in somewhat shallower ideas of depths and in shallow drilling when tests failed to reveal dome formations these prospects



Christmas tree hook-up on Skelly Oil Co.'s No. 1 Cobb, Van Vleck prospect, Matagardo County, Texas. This is a Hughes retractor type head with 6,000-pound test Hughes valves and fitting. The well, the discovery well, recently completed, came in a wet gasser with 2,575 pounds working pressure, from a sand at 7,076 feet. The well is typical of high pressures expected to be encountered in deep development on the Gulf Coast. The hook-up is typical of the size of such connections used on high pressure wells in this district

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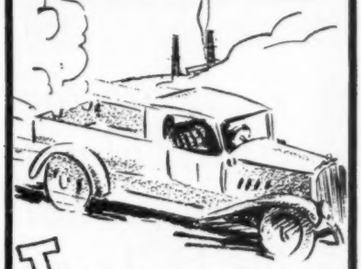

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escaped discovery. Now that deeper drilling has given the answer to the findings of early geophysical work there is a concerted effort on the part of operators to redrill these old prospects and in their proving up, an extensive new potential source of development is opened for the Gulf Coast.

Widespread Deep Tests in Progress on Gulf Coast

(Continued from Page 55)

duction Co. has just abandoned a deep test on the block it has north of the Jennings Field in Acadia Parish. The hole went only to a depth of 7,590 feet but was quit because of mechanical trouble. Superior Oil Corp. of California is drilling still another prospect in eastern Acadia Parish and is around 8,670 feet as this is written. Various other similar deep prospects now are being drilled, or deep tests have been drilled on them in the present deep drilling play.

Among the older domes and fields which have figured in the deep drilling are Lockport, Starks, Sulphur, Edgerly and Vinton. At Lockport, Magnolia Petroleum Co. has just abandoned a test in the old original field at 7,078 feet, the deepest ever drilled in that area. Other tests have been drilled deeper in the west extension district, one having just been taken to a total depth of over 7,700 feet. The deep well in the original Lockport Field gave promise of opening a new deep producing horizon there when it found sand at 6,875-90 feet. Attempts to complete it there, however, were unsuccessful. Magnolia Petroleum Co. has another well, its No. 11 Bordages, at Lockport which has just been drilled to 7,250 feet where it is in oil sand and preparing to test as this is written.

At Edgerly, Yount Lee Oil Co. has just recently drilled a test, a mile south of the field, to a depth of 8,410 feet, where it was abandoned. While in a horizon at 7,930 feet this test tried to blow out. Few tests at Edgerly have ever gone below 6,000 feet and deepest production at this time is around 4,500 feet.

Heaving Shale Problem

Union Sulphur Co. is attempting a deep test for Vinton in its No. 1 Vincent. While, as this is written, the test is down only around 6,550 feet, this is deep for that field. Progress in the well has been delayed by heaving shale, a formation which has proved the stumbling block of previous attempts by others at exploring the possible deep underlying sands, not only at Vinton but in many other areas. Solution of the heaving shale program and considerable work has been done along this line in recent months, is expected to open the way for much deeper exploration in the future.

At Sour Lake, Hardin County, the search for deep sand production is being carried on by Parr and associates who have drilled a test on the east flank of the dome to a total depth of 6,944 feet where the hole now is in sand, topped at 6,936 feet, showing oil. Except for a very few wells, none below 5,000 feet, production at Saratoga has been confined to cap rock and comparatively shallow sands.

Development of Cockfield sand possibilities has not occasioned any particularly deep drilling. The main production at Conroe is found around 5,100 feet. At Tomball, the pay is at 5,600 feet, and in the new Cleveland Field and at Splendora at 5,800 feet. At Tomball, several tests have been drilled below 7,000 feet in geological exploration, and at Cleveland, Gulf Production Co. is drilling below 7,500 feet in one of its tests there. This well is of particular interest in view of the new horizons it is expected to explore. As this is written it is in the Cook Mountain but the hole is to be drilled to the Sparta, which never has been reached by any strictly Gulf Coast test as yet. The Cook Mountain was topped in this test at approximately 7,400 feet. The Mount Selman has yet to be drilled before reaching the Sparta.

A deep test of a similar nature is Humble Oil & Refining Co.'s No. 1 Long Bell, Dry Creek area, Beauregard Parish, Louisiana. This is the first major test to be drilled along the so-called "Conroe trend" in coastal Louisiana. It has just lately passed 7,000 feet prepared to go to an indefinite horizon.

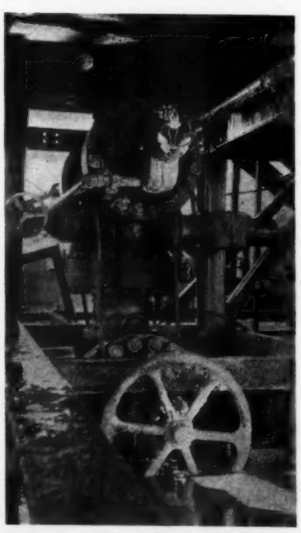
Another type of deep exploration is under way in the lower country in the form of Frio sand development, such as at Louise in Wharton County. At Greta, Refugio County, a number of deep tests are being drilled around the edges of the main 4,400-foot producing horizon. In the McFaddin district of southwestern Victoria County, Texas Co. is drilling a test which is expected to go to new low depths for that area, and generally through the lower country deeper drilling is in store.

Throughout the entire Gulf Coast, exploration of such deeper horizons within the past several months has given such evidence of the existence of additional potential sources of crude reserve that incentive has been given for additional deep development not only on and around the prospects and fields already drilled but also on the many others which have been indicated by geophysical work but which have not been touched by the drill. All in all these furnish the background for a continuation of the present deep drilling program in which lower and lower horizons probably will be reached, the only limitation being the capacity of modern machinery for punishment and the ability of the operators to overcome mechanical and formation problems faced in attaining such depths.

Heaviest and Strongest Equipment in Deep Tests

(Continued from Page 59)

with the speed 23 strokes (cycles) per minute, while the well with full hole joints circulated 425 gallons per minute with pump pressure only 700 pounds,



Type of heavy duty cellar control hook-up being used on deep tests being drilled on the Gulf Coast. In this picture are shown the Hughes 13 3/8-inch drilling gate valve on bottom, the Cameron pressure operated 13 3/8-inch blow-out preventer, and a McEvoy 13 3/8-inch blow-out preventer on top. This particular hook-up is on Mills Bennett Production Co.'s No. 1 Riverside, Acadia Parish, La.

the speed being 33 strokes or cycles per minute.

Exploration at lower depths has brought about the drilling of larger holes so that in present day operations the drilling to lower horizons will not be limited by insufficient hole with which to work. In the past the starting of hole too small has forced the ending up of tests at depths as shallow as 6,000 feet and above with as small as 4¼-inch hole and with such hole there was no chance of doing anything. Present deep tests are going as low as 7,000 to 8,000 feet with as much as 10½-inch hole and more.

Typical of big holes now in vogue is that being put down by Pure Oil Co. at Sweet Lake. That test, No. 12 Yount Lee, was started with 28-inch bit for surface in which 24-inch casing was cemented at 90 feet. The hole down to 1,061 feet took 18⅝-inch casing, and down to 4,523 feet 13⅜-inch casing was run. It is anticipated that this test will go to 10,000 feet if necessary and at present depth around 5,800 feet the hole is of sufficient size to handle 9⅝-inch casing.

Giant and Improved Bits

The giant and improved bits being furnished by the manufacturers present a very sharp contrast to bits in vogue even up to one or two years ago. For ordinary coastal drilling, particularly in the upper horizons, fish tails serve. However, need always is being found for rock bits and this is on the increase as new and deeper areas are being sought. Certain districts and fields, even on the Gulf Coast, present exceptionally hard digging. For instance, at Evangeline (Jennings) where Yount Lee Oil Co. is carrying on deep sand development on the southeast side of the dome, extreme difficulties are encountered particularly in drilling through an overhang of very hard anhydrite and pyrites in which not more than 4 to 10 feet can be made at a time even with rock bits. Such fields as Mykawa, High Island and Barbers Hill have their hard drilling problems.

Drilling of big holes as above mentioned call for the running of large and heavy strings of pipe, especially in the event of setting of casing. Handling of heavy strings of pipe places considerable responsibility upon the slips used, an important piece of equipment not only in deep, but also all, drilling operations. Within the past year there has been considerable improvement in manufacture and there now are slips capable of handling very heavy strings of pipe without danger or injury to the pipe.

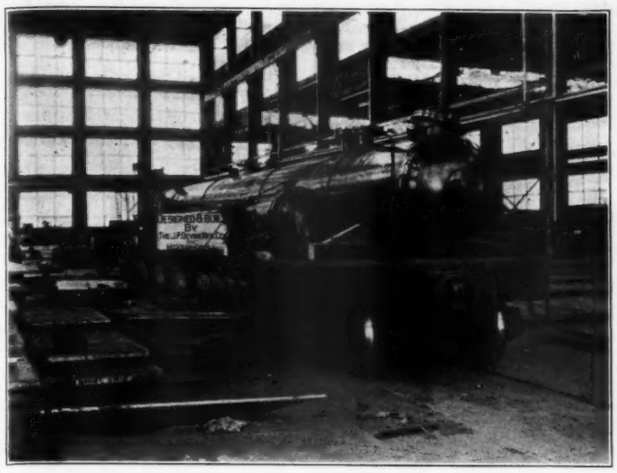
Straight Hole Drilling

Special consideration also is being given by coastal operators in their deep sand exploration to the drilling of straight, vertical holes. While important even in shallower holes, this phase of drilling is all the more of concern in deep tests for obvious reasons. Weight indicators are a part of the regular and necessary equipment on every derrick floor and holes are constantly checked with hole surveying instruments.

Not only is attention directed toward drilling vertical straight holes but also every effort has been and is being made by all operators to keep the holes in good condition. Reamers are used commonly, not only to facilitate drilling a straight hole but also in keeping the hole in gauge. There are some operators, however, who believe reamers increase the hazard of sticking drill stem, and avoid reamers on the pipe while drilling. With reamers, the usual practice is to drill with a double reamer just above the bit and a single reamer set around 30 feet up the hole.

Blowout preventers are kept on all holes from the setting of the surface casing on down. Various kinds are in service, but all are of the heaviest and most modern construction, including mechanically operated, hydraulically controlled and other types. High pressures frequently encountered unexpectedly in coastal drilling make blowout prevention and control equipment necessary at all times. The hazard of blowouts is constantly present and is one of the most serious problems faced by coastal operators.

The completion of wells in deeply seated horizons with high pressures, such as at Pledger, Iowa and very recently at Van Vleck, and at several other fields, has necessitated the adoption of the



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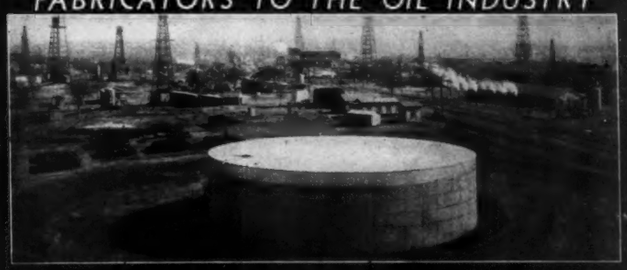

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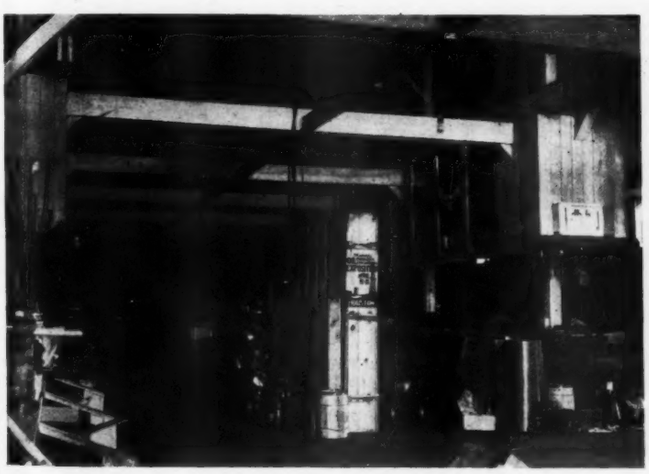

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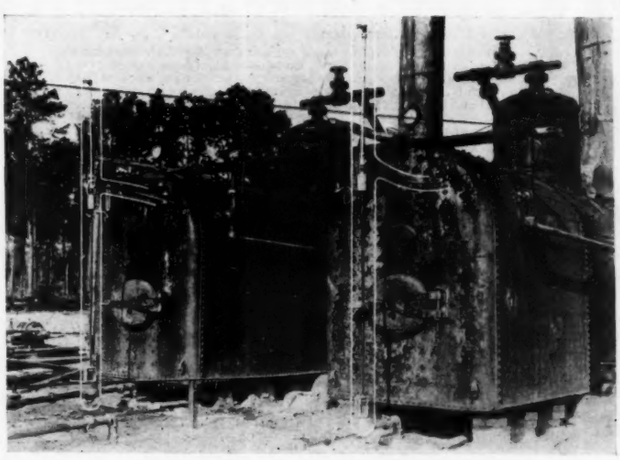

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heaviest and strongest well head equipment and christmas tree connections obtainable. The hook-ups at the above three specifically named fields are typical of what coastal operators are using. In each place only 6,000-pound test material and connections have been installed. These, however, have handled the pressures in these fields without mishap.

The Iowa Field is a model for good, heavy equipment in every way. Due to the general and active development there with the hazards of blowouts, not only from the lower sands but also the upper horizons, ever present, operators have had to exert every precaution possible and only equipment capable of meeting any emergency has been permitted. The field has gone on record as being one of the most efficiently developed and controlled fields for its depth of any on the Gulf Coast. In this field is the largest grouping of deep wells of any place on the coast. On March 6 there were 17 wells producing from a 6,900-7,000-foot horizon; three wells from a 6,600-6,750-foot level; one well each from sands at 5,539 feet and 4,470 feet. Five tests, ranging in depths from 4,929 feet to 7,590 feet (three below 7,194 feet), have been drilled and abandoned.

Heaving Shale Drilling

Heaving shale perhaps is the most difficult situation coastal operators have to combat in their efforts to explore the lower horizons. That formation, which to date never has been satisfactorily conquered, has cost oil companies inestimable sums of money and time in trying to conquer it. The problem with heaving shale, as is known lies in the maintenance of hole while pipe is being pulled and in preventing of the shale from caving in around the drill pipe and sticking it. The shale has a faculty of caving in and following the drill pipe out of the hole so that in it it is almost impossible to make any headway. In going back in the hole with drill pipe drillers usually find that all the hole previously drilled in the shale has been lost and must be redrilled.

Considerable work and study have been directed lately toward the problem of heaving shale drilling, particularly in the use of special drilling fluids and chemicals in building up adequate walls in the hole. The manufacturers of special drilling muds and chemicals have been co-operating closely with engineers and production men of the oil companies and some success has been attained along these lines.

Wire line and collapsible blade bit equipment, mentioned previously, also has been used to great advantage in the fighting of heaving shale. The fact that bits can be pulled by wire line without the necessity of pulling pipe eliminates the heaving of hole which usually occurs in customary drilling practices when pipe is pulled. For the drilling of heaving shale with wire line equipment special pipe can be used which can serve both as drill pipe and for casing when the heaving shale is penetrated, the pipe to be left in the hole and cemented in place.

A number of particularly interesting heaving shale wells are drilling at this time. At Vinton, Union Sulphur Co.'s No. 1 Vincent has been battling heaving shale for a couple of months and still is making a little headway. While drilling is slow going, the operators have been able to keep the hole clear. At Shepherds Mott, Oils Consolidated, Inc., in conjunction with the Cockburn Oil Corp., has successfully cemented a string of 9⅝-inch casing approximately 100 feet in the top of a section of heaving shale at 5,328 feet preparatory to another attempt to drill through the shale there. All previous tests at Shepherds Mott have been abandoned in that formation.

That important production can be found in possible sands underlying heaving shale beds, which are encountered at fairly deep levels around most of the salt domes, is generally believed. The heaving shale itself usually shows considerable gas, and this is partly responsible for some of the trouble experienced in it. At Vinton, one of the fields above mentioned, heaving shale is found at fairly shallow depths around the dome and has prevented any deep drilling at all around that dome and it is this fact that makes the Union Sulphur test of especial interest.

In the work which has been done to date it has been found that various factors enter into the battle against heaving shale and that, by a combination of all, the problem of the formation may be solved to permit the exploration of lower horizons. The factors include the use of wire line drilling equipment or the use of proper walling materials, adequate drilling fluid and free circulation, maintenance of proper pressure conditions, and careful drilling on the part of the operator. Efficient carrying out of these practices and successful drilling of heaving shale can be facilitated by the modern, heavy machinery which has been placed on all these deep tests to meet most any known emergency which might arise.

Film "Story of Petroleum" Is Re-edited and Revised

The motion picture film "The Story of Petroleum," which was originally produced under the supervision of the U. S. Bureau of Mines in co-operation with the American Petroleum Institute, has been completely re-edited and revised to make a four-reel subject entitled "Petroleum—the Liquid Mineral." The four-reel version is a complete narrative of the petroleum industry, with the exception of refining operations, and includes prospecting, drilling, production, storage, and transportation—all of which are graphically and fully presented.

The American Petroleum Institute owns the negative which carries the regular Bureau of Mines emblem and government title; but any company or association in the petroleum industry may arrange with the Bureau of Mines to have copies made up with their name instead of that of the Institute appearing in the courtesy title at the beginning and end of the film. A complete scenario of the film may be borrowed for inspection upon application to the U. S. Bureau of Mines, Washington, D. C.

Companies desiring to have copies of this film circulated by the Bureau of Mines may do so by furnishing five 16-mm. prints and three 35-mm. prints for this purpose.

Humble Annual Report Shows 1933 Net Profit

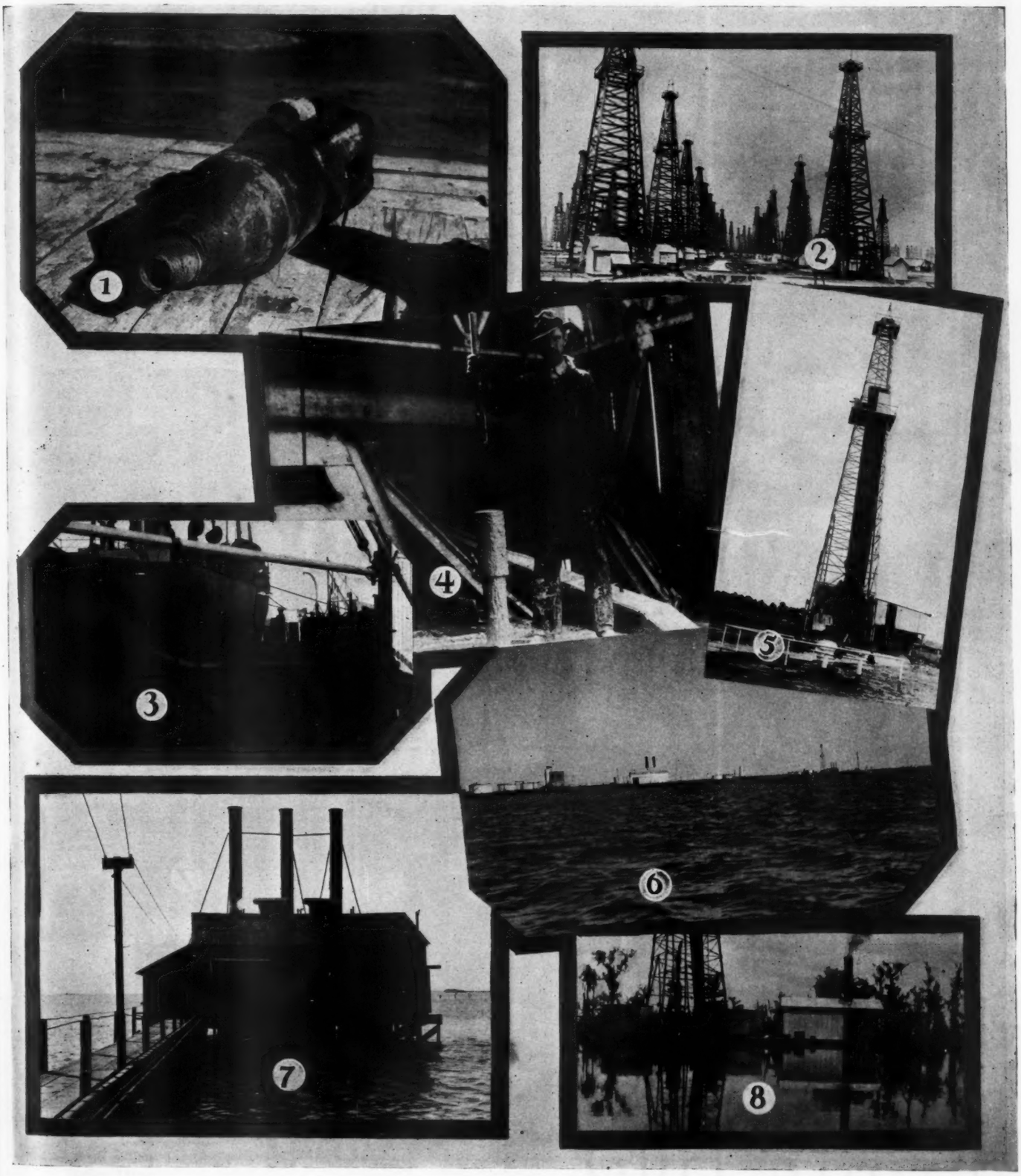
The Humble Oil & Refining Co., in its pamphlet report for 1933, shows net profits for the year after expenses, reserves, taxes, interest and other charges of $20,847,817, equal to $2.32 a share on the 8,985,666 shares of no-par value capital stock outstanding. For 1932, the company reported a net income of $14,896,613, or $5.03 a share on the 2,974,645 capital shares then outstanding, which were subsequently split three new shares for each old share.

The balance sheet of December 31, shows current assets of $61,372,619 and current liabilities of $14,419,685, compared to $55,657,652 and $10,534,061, respectively, at the close of the previous year. Cash and demand loans amounted to $20,951,219, against $19,785,275. Fixed capital assets were carried at $179,020,500 after deducting reserves for depreciation and depletion amounting to $110,151,002, compared with $167,504,927, after deducting reserves of $102,968,437.

"This company," R. L. Blaffer, president, states, "together with other stockholders of Standard Oil Export Corp., guaranteed as to dividends and as to par in the event of liquidation, 764,935 shares of 5 per cent stock of that corporation. This was necessary to procure foreign markets for our refined output. In 1933, this guarantee cost this company $1,147,402. We hope for such improvement in foreign markets as will make this investment profitable."

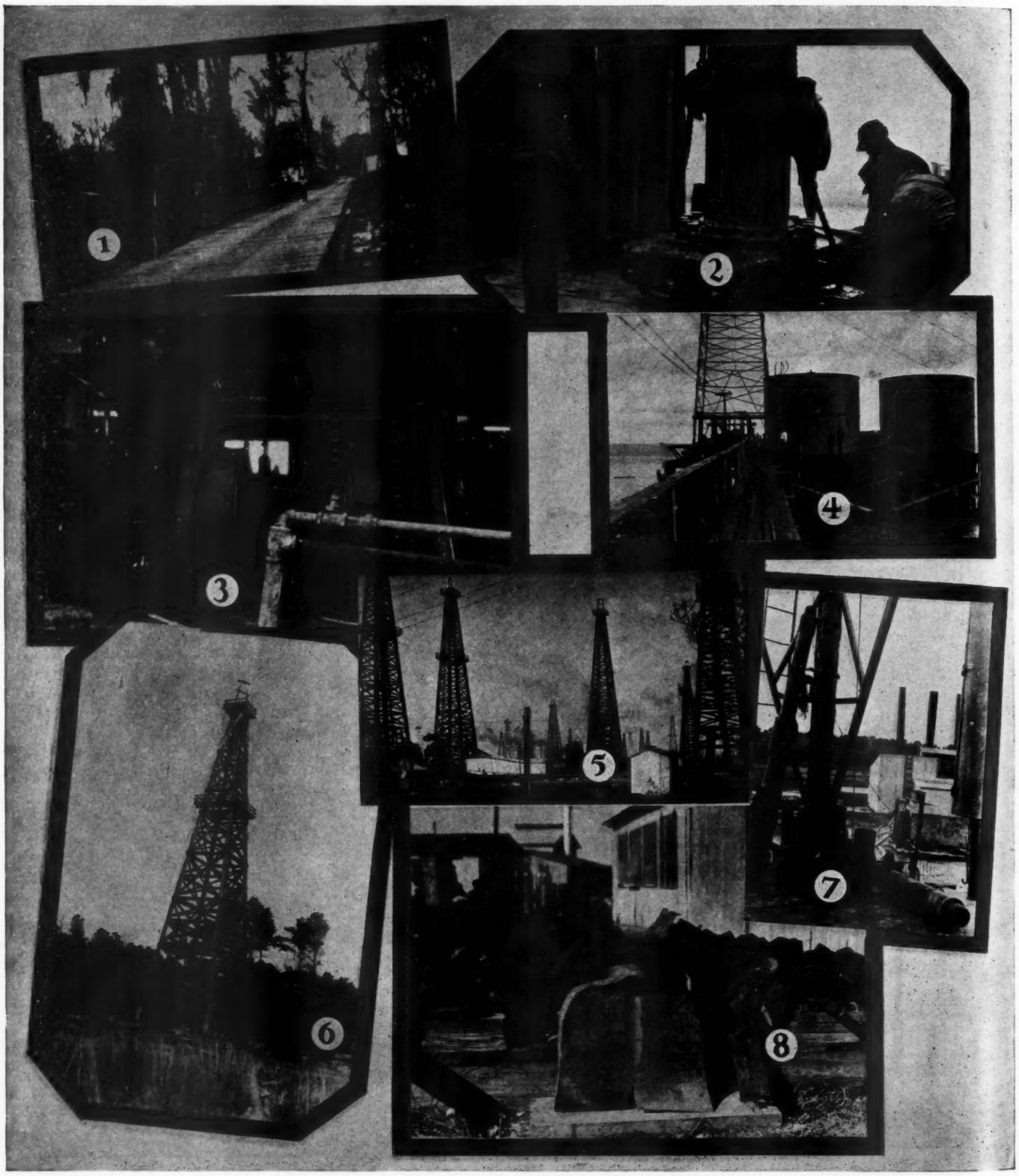
The Humble company is controlled by the Standard Oil Co. of New Jersey through the ownership of approximately 70 per cent of its capital stock.

Many Unique Problems Are Encountered in Gulf Coast Drilling Operations



1—Type of large reamer used on some Gulf Coast deep wells. 2—Deep flank sand area of Spindletop Field, Texas. 3—Tanker at Gulf Coast terminal. 4—Running overshot in well drilled by Shell Petroleum Corporation, Iowa, Louisiana. 5—Mills Bennett Production Company's No. 1 Riverside, deep wildcat north of Jennings Field in Acadia Parish, Louisiana, abandoned at 7,590 feet. 6—General view of Sweet Lake Field, Cameron Parish, Louisiana. 7—Boiler house in Sweet Lake, Louisiana. 8—Wildcat in coastal Louisiana swamp. Boilers, mud and fuel tanks built on barges.

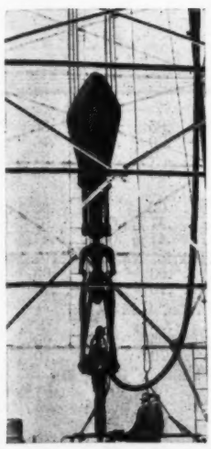
Heavy Equipment Is Used in Deep Drilling on the Gulf Coast



1—Drilling in Louisiana swamp, miles of plank road often are necessary. 2—Installing blowout preventer in Sweet Lake, Cameron Parish, Louisiana. 3—Type of heavy drawworks used in deep drilling at Sweet Lake, Cameron Parish, Louisiana, by Pure Oil Company. 4—Drilling in the Gulf of Mexico offshore from Terrebonne Parish, Louisiana. 5—Location to explore deep Jackson sand on south side of Hull Dome, Liberty County, Texas. 6—Gulf Coast's deepest noncommercial producer. Yount Lee Oil Company's No. 10 Housierre-Latrielle, Jennings, La. Total depth 8,762 feet. 7—Bits and reamers on floor of one of Gulf Coast's deep wildcats. 8—Twenty-eight inch diameter fishtail bit used to start holes in Sweet Lake Field, Cameron Parish, Louisiana.

BUCKEYE and BINGER . . .

PROVE THAT GUMBO BUSTER HAS KEPT PACE!



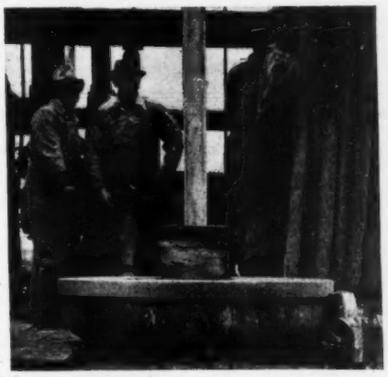
RECORD depth wells at Buckeye, Texas, and Binger, Oklahoma, clearly prove that Gumbo Buster rotary drilling equipment has kept well abreast in the march toward ever deeper production.

At Buckeye, the United North and South Development Company, using two complete Gumbo Buster rigs of the latest and heaviest type, drilled one well to 9,257 feet, and another to 8,400 feet. Even at these depths, long strings of drill stem and casing were handled with speed and ease. At Binger, Oklahoma, where the Denver Producing and Refining Company's Adah Noe has been bottomed at 9,982 feet, Gumbo Buster pumps were on the job.

These records speak for themselves. They tell a story of consistent improvement in design and manufacture which has kept Gumbo Buster rotary drilling equipment in the front rank since the early days of Spindletop. No finer equipment is available today.

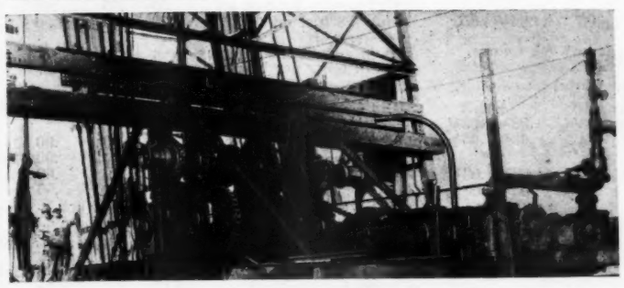
At Buckeye, Texas, Unit No. 6 well was carried to 9,257 feet. The following Gumbo Buster equipment was used: Straight Line Crown Block; Model B 66" Traveling Block; Model B 8" Swivel; 26" Oil Bath Rotary; Four-speed, Jack-shaft Draw-works; 14"x13" Twin Cylinder Engine; and two Type "G" Model C Pumps, size 14½"x7¼"x18". On Unit No. 25 well, Buckeye, an identical rig, with the exception of the rotary, was used to drill to 8,400 feet.

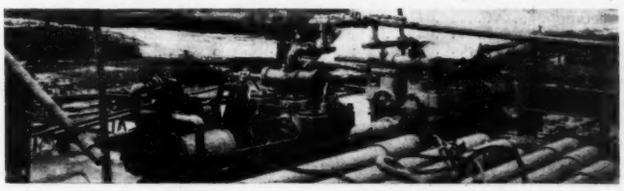
Two Gumbo Buster 14½"x7½"x18" mud pumps carried the Denver Producing and Refining Company's No. 1 Adah Noe, Binger, Oklahoma, to 9,982 feet. A record which speaks for itself.



Pictured herewith, Gumbo Buster equipment used to drill 9,257-foot well at Buckeye.

Visit our Exhibit at the Oil Equipment and Engineering Exposition at Houston, April 16th to 21st.





AMERICAN WELL & PROSPECTING COMPANY
CORSICANA • TEXAS

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W-K-M Friction Slip

W-K-M Friction Slips have greater gripping area, greater holding capacity and a soft, velvety action which approaches absolute perfection in rotary slip performance. They are very light, take hold or release instantly, and cannot slip, cut or bottleneck your pipe. Try a set on your next well.

They don't dig 'em too deep for W-K-M ROTARY SLIPS

It takes a long string of drill pipe to reveal the quality, and correctness of design, of a rotary slip. The use of W-K-M Rotary Slips on many of the deep tests now going down in the Gulf Coast is the best possible proof of their ability to hold drill pipe securely, without swaging or damaging it. The Union Tool Type, Special Long, W-K-M Rotary Slips shown above are in use on a deep test in Louisiana rigged up to go 10,000 feet, if necessary. The hole is now below 7,000 feet.

W-K-M CO., Inc.
HOUSTON - - - TEXAS

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Export Office: 74 Trinity Place, New York City

ELECTRIC POWER SERVICE

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As DEPENDABLE as good engineers can make it
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As FRIENDLY as good friends can make it

GULF STATES
UTILITIES COMPANY

General Offices:
BEAUMONT, TEXAS and LAKE CHARLES, LA.

REFINERY AND CRUDE PRICES

Quotations on refined products are for interstate or export movement except as otherwise noted

The following quotations are exclusive of the Federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasolines

OKLAHOMA (Group 3)—	Apr. 10		Apr. 3	
U. S. Motor grades:				
Below 60 octane	.03⅝	.03⅞	.03¼	.03⅜
60-64.9 octane	.04¼	.04½	.04	.04¼
65-70 octane	.04½	.04¾	.04¼	.04½
60-62 400 grades:				
Below 60 octane	.03¾	.03⅞	.03⅜	.03⅝
60-64.9 octane	.04⅜	.04½	.04⅛	.04½
65-70 octane	.04⅝	.04¾	.04½	.04¾
64-66 375	.04⅛	.04¼	.03⅞	.04
68-70 360	.04¼	.04½	.04¼	.04½
NORTH TEXAS—				
U. S. Motor grades:				
Below 60 octane	.03⅝	.03⅞	.03¼	.03⅝
60-64.9 octane	.04¼	.04½	.04	.04¼
65-70 octane	.04½	.04¾	.04¼	.04½
60-62 400	.03¾	.03⅞	.03⅜	.03⅝
64-66 375	.04⅛	.04¼	.03⅞	.04
68-70 360	.04¼	.04½	.04¼	.04½
NORTH LOUISIANA (Ark., No. La. & Miss. del.)—				
U. S. Motor grades:				
Below 60 octane	.04¼		.03¾	
60-64.9 octane	.05	.05¼	.04⅝	
65-70 octane	.05⅝		.05⅛	
60-62 400	.04¼		.03¾	
ARKANSAS (Ark., No. La. & Miss. del.)—				
U. S. Motor grades:				
Below 60 octane	.04⅛		.03¾	
60-64.9 octane	.04⅞		.04¾	
65-70 octane	.05¼		.05⅛	
CHICAGO (based on Oklahoma Group 3)—				
U. S. Motor grades:				
Below 60 octane	.03¾	.03⅞	.03¼	.03⅜
60-64.9 octane	.04½	.04⅝	.04⅛	.04¼
65-70 octane	.04⅞	.05	.04½	.04¾
60-62 400	.03⅝	.03⅞	.03¼	.03½
64-66 375	.04¼	.04⅜	.04	.04¼
68-70 360	.04½	.04⅝	.04¼	.04½
Aviation fighting grade	.05⅛	.05¼	.04⅞	.05⅛
PENNSYLVANIA (inland refineries)—				
58-60 U. S. Motor:				
Below 60 octane	.05	.05⅛	.04⅞	.05
60-64.9 octane	.06¼	.06½	.06⅛	.06¼
65-70 octane	.06⅝	.06¾	.06½	.06⅝
64-66 375	.06	.06½	.06	.06⅛
68-70 350	.06¼	.06½	.06¼	.06½
CALIFORNIA (domestic movement)—				
54-58 U. S. Motor	.04	.05	.04	.05
58-60 400	.04½	.05½	.04½	.05½
EAST COAST—				
U. S. Motor, below 60 octane:				
New York	.05½	.05¾	.05½	.05¾
Baltimore	.05½	.05¾	.05½	.05¾
U. S. Motor, 60-64 octane:				
New York (Bayonne)	.05¾		.05¾	
Philadelphia	.05¾	.06	.05¾	.06
Boston	.06	.06¼	.06	.0645
Baltimore	.05¾		.05¾	
Charleston, S. C.	.05¾		.05¾	
U. S. Motor, 65 and above:				
New York (Bayonne)	.06		.06	
Philadelphia	.06	.06¼	.06	.06¼
Boston	.06¼	.06½	.06¼	.0670
Baltimore	.06	.06¼	.06	.06¼
Charleston, S. C.	.06	.06¼	.06	.06¼
GULF COAST (domestic)—				
U. S. Motor:				
Below 60 octane	.04½	.04¾	.05	.05¼
60-64.9 octane	.04¾	.05	.05¼	.05½
65 octane and higher	.05⅛	.05⅜	.05½	.05⅝

Naphthas

	Apr. 10		Apr. 3	
PENNSYLVANIA (inland refineries)—				
50-52 430-450 (blending)	.04½	.04¾	.04½	.04¾
52-54 430-450 (blending)	.04½	.04¾	.04½	.04¾
54-56 430-450 (blending)	.04½	.04¾	.04½	.04¾
CHICAGO (based on Oklahoma Group 3)—				
50-52 450 (blending)	.03½	.03¾	.03¼	.03½
Cleaners' naphtha, 56-58 gr., 200 i.b.p.-330 e.p.	.06	.06½	.06	.06¼
Lacquer diluent, 180 i.b.p.-250 e.p.	.07	.07½	.07	.07½
Lacquer diluent, 140 i.b.p.-200 e.p.	.08	.08½	.08	.08½
Rubber solvent, 68-70 gr., 190 i.b.p.-300 e.p.	.06	.06½	.06	.06¼
Stoddard solvent, 300 i.b.p.-410 e.p., over 83° flash	.05½	.06	.05½	.06
Pet. thinner, 290-300 i.b.p., 415 e.p., over 83° flash	.05½	.05¾	.05⅝	.05⅝
V.M.&P. naphtha, 56-58 gr., 190-200 i.b.p.-330 e.p.	.06	.06½	.06	.06¼
Petroleum spirits	.05	.05¼	.05	.05¼

Natural Gasolines

OKLAHOMA (Group 3)—	Apr. 10		Apr. 3	
Grade 26-70	.01⅝		.01⅜	.01½
Grade 18-55	.02	.02⅛	.01⅞	.02
Low vapor pressure grades:				
15 lb. v.p. (max.)	.02⅜	.02½	.02	.02¼
11 lb. v.p. (max.)	.03¼		.02¾	.02⅞
NORTH TEXAS—				
Grade 26-70	.01⅜	.01½	.01¼	.01⅜
Grade 18-55	.02	.02⅛	.01¾	.01⅞
Low vapor pressure grades:				
15 lb. v.p. (max.)	.02¼	.02⅜	.01⅞	.02
11 lb. v.p. (max.)	.03	.03⅛	.02⅝	.02¾
NORTH LOUISIANA—				
Grade 26-70	.01⅞	.02	.01¾	
CALIFORNIA—				
75-78 375	.04½	.05	.04½	.05

Kerosenes

(All kerosenes water white)

OKLAHOMA (Group 3)—	Apr. 10		Apr. 3	
41-43	.03⅜	.03⅝	.03¼	.03½
42-44	.03½	.03¾	.03½	.03⅝
NORTH TEXAS—				
40-41	.03⅛	.03¼	.03⅛	.03¼
41-43	.03¼	.03⅜	.03¼	.03⅜
NORTH LOUISIANA (Ark., No. La. & Miss. del.)—				
41-43	.03¾		.03¾	
ARKANSAS (Ark., No. La. & Miss. del.)—				
41-43	.03¾		.03¾	
PENNSYLVANIA (inland refineries)—				
45	.04¾	.05	.04¾	.05
46	.04⅞	.05¼	.04⅞	.05¼
47	.05⅛	.05¼	.05⅛	.05¼
CHICAGO (based on Oklahoma Group 3)—				
41-43	.03⅝	.03¾	.03⅜	.03½
42-44	.03¾	.03⅞	.03½	.03⅝
CALIFORNIA (Pacific Coast consumption)—				
38-40 high burning test	.04¼	.04¾	.04¼	.04¾
NEW YORK (Bayonne, N. J.)—				
41-43	.05½	.05¾	.05½	.05¾
GULF COAST (domestic)—				
41-43	.04¼	.04½	.04¼	.04½

Petroleum Coke

Prices per ton f.o.b. refineries in Chicago area.

(Refineries will absorb freight to 80 cents a ton)

	Apr. 10		Apr. 3
Breeze (screenings)	5.00		5.00
Pile run	5.00		5.00
Direct from still	6.00		6.00
Lump and egg	7.50	8.00	8.00

Furnace Oils and Tractor Fuels

(Zero cold test under 190° flash and good odor)

OKLAHOMA (Group 3)—	Apr. 10		Apr. 3	
32-36 straw	.02⅝	.02¾	.02⅝	.02¾
36-38 straw	.02⅝	.02¾	.02⅝	.02¾
38-40 straw	.02¾	.02⅞	.02¾	.02⅞
39-41 prime white	.02⅞	.03	.02⅞	.03
NORTH TEXAS—				
38-40 straw	.02¾	.03	.02¾	.03
NORTH LOUISIANA (Ark., No. La. & Miss. del.)—				
36-40 furnace oil	.03		.03	
ARKANSAS (Ark., No. La. & Miss. del.)—				
32-36 furnace oil	.02¾	.02⅞	.02¾	.02⅞
CHICAGO (based on Oklahoma Group 3)—				
32-36 straw	.02⅝	.02⅞	.02⅝	.02⅞
38-40 straw	.02¾	.02⅞	.02¾	.02⅞
38-40 prime white	.03	.03⅛	.02⅞	.03
PENNSYLVANIA (inland refineries)—				
40-41 prime white	.04½	.04⅝	.04½	.04⅝
NEW YORK (Bayonne, N. J.)—				
36-40 (No. 1 grade)	.05½	.05¾	.05½	.05¾
32-36 (No. 2 grade)	.04½	.04⅝	.04½	.04¾
21 industrial (No. 4 grade)	.04	.04¼	.04	.04¼

Gas Oil, Diesel Oil and Fuel Oil

(Gas oil per gallon; Diesel and fuel oils per barrel)

OKLAHOMA (Group 3)—	Apr. 10		Apr. 3	
32-36 gas oil cracking stock	.01⅞	.02⅛	.01⅞	.02⅛
U.G.I. gas oil	.02½		.02½	
32-36, zero to 15 gas oil	.02⅞	.03	.02⅞	.03
28-30, No. 3 burner oil	1.00	1.05	1.00	1.05
28-30, zero to 10 fuel oil	.95	1.00	.95	1.00
26-30, zero to 10 fuel oil	.85	.95	.85	.95
24-26 fuel oil	.70	.75	.70	.75
20-22 fuel oil	.57½	.65	.57½	.65
Below 16 fuel oil	.55	.60	.55	.60
NORTH TEXAS—				
32-36 gas oil, industrial	.02		.02	
22-26 fuel oil	.57½	.62½	.57½	.62½
Below 20 fuel oil	.47½	.50	.47½	.50
NORTH LOUISIANA (Ark., No. La. & Miss. del.)—				
32-36 gas oil, zero	.03		.03	
14-16 fuel oil	.70		.70	
ARKANSAS (Ark., No. La. & Miss. del.)—				
30-32 gas oil, zero	.02¾		.02¾	
32-36 gas oil	.03		.03	
14-16 fuel oil	.70		.70	
CHICAGO (based on Oklahoma Group 3)—				
32-36 gas oil, industrial	.01⅞	.02	.01⅞	.02
28-30 zero to 10, fuel oil	.95	1.02½	.95	1.02½
26-28 zero to 10, fuel oil	.85	.90	.85	.90
22-26 zero to 10, fuel oil	.75	.80	.75	.80
18-22 zero to 10, fuel oil	.60	.65	.60	.65
Below 18 fuel oil	.50	.55	.50	.55

Note: Fuel oils of more than 40 cold test generally 5 to 15 cents per barrel less in all these areas.

PENNSYLVANIA (inland refineries)—				
36-40	.03⅞	.04	.03⅞	.04
CALIFORNIA—				
30-34 gas oil per bbl.	.90	1.00	.90	1.00
27 plus Diesel	.90	1.00	.90	1.00
15-19 bunker (at tidewater)	.60	.70	.60	.70
15-19 (cargo lots)	.55	.60	.55	.60
15-19 (tank cars)	.45	.60	.45	.60
GULF COAST—				
28-30 gas oil	.03¼	.03½	.03¼	.03½
28-30 Diesel (bunkers)	1.80		1.80	
Bunkers C (bulk cargoes)	.95	1.00	.95	1.00
Bunker C (bunkers)	1.15		1.15	
NEW YORK (Bayonne, N. J.)—				
28 plus, gas oil	.04¼	.04½	.04	.04¼
28-30 Diesel (lighterage 6½ cents per bbl.)	1.95		1.95	
.04½		.04½		
*Bunker C (to ocean-going ships in N. Y. harbor)	1.30		1.30	

*Lighterage charge 5 cents per barrel additional.

Neutral Oils

(Vis. at 100° F. except Pennsylvania, and color N.P.A.)

OKLAHOMA (Group 3)—	Apr. 10		Apr. 3	
Zero to 10 Cold Test:				
150-3	.08		.08	
180-3	.09¼		.09¼	
180-4	.09		.09	
200-3	.09¾		.09¾	
200-4	.09½		.09½	
240-3	.11⅝		.11⅝	
240-4	.11½		.11½	
280-3	.12¾		.12¾	
280-4	.12¼		.12¼	
300-3½	.13½		.13½	
350-3½	.14½		.14½	
400-4	.15½		.15½	
500-4½	.16½		.16½	
100-2 paraffin oil	.05¾		.05¾	
15-30 Cold Test:				
200-3	.08¾		.08¾	
200-4	.08½		.08½	
240-3	.10¾		.10¾	
240-4	.10½		.10½	
280-3	.11¾		.11¾	
280-4	.11½		.11½	
GULF COAST—				
Pale Oils:				
200-3	.07½		.07½	
300-3	.08	.08¼	.08	.08¼
500-3½	.09	.09¼	.09	.09¼
750-3½	.09¾	.10	.09¾	.10
1,200-3½	.10¼	.10½	.10¼	.10½
2,000-4	.10¾		.10¾	
Red Oils:				
200-5-6	.06½		.06½	
300-5-6	.07	.07¼	.07	.07¼
500-5-6	.08	.08¼	.08	.08¼
750	.08¾	.09	.08¾	.09
1,200-5-6	.09¼	.10	.09¼	.10
2,000-6½ plus	.09¾	.10½	.09¾	.10½
CALIFORNIA—				
Pale Oils:				
100-2½-3	.23	.25	.23	.25
200-2½-3	.23	.25	.23	.25
300-3-3½	.23	.25	.23	.25
350-3-4	.23	.25	.23	.25
400-3-4	.23	.25	.23	.25
450-3-4	.23	.25	.23	.25

550-3-4	.23	.25	.23	.25
600-3-4	.23	.25	.23	.25
Red Oils:				
200-4-5	.23	.25	.23	.25
300-5-6	.23	.25	.23	.25
350-5-6	.23	.25	.23	.25
400-5-6	.23	.25	.23	.25
450-5-6	.23	.25	.23	.25
500-5-6	.23	.25	.23	.25
600-5-6½	.23	.25	.23	.25
700-6½ plus	.23	.25	.23	.25
750-6½ plus	.23	.25	.23	.25
900-6½ plus	.23	.25	.23	.25
PENNSYLVANIA—				
150 vis. at 70° F., 3 color; 400-405 flash:				
Zero pour test	.23½	.24	.23½	.24
10 pour test	.22½	.23	.22½	.23
15 pour test	.22	.22½	.22	.22½
25 pour test	.21	.21½	.21	.21½
180 vis. at 70° F., 3 color:				
25 pour test	.25	.25½	.25	.25½
200 vis. at 70° F., 3 color:				
Zero pour test	.30	.30½	.30	.30½
10 pour test	.28½	.29	.28½	.29
15 pour test	.28	.28½	.28	.28½
25 pour test	.27½	.28	.27½	.28

Bright and Steam Refined Stocks

OKLAHOMA (Group 3)—	Apr. 10		Apr. 3	
Bright Stocks:				
190-200 D	.26½		.26½	
150-160 D, 0-10	.23¾		.23¾	
150-160 D, 10-25	.23¼		.23¼	
150-160 25-40	.22¾		.22¾	
150-160 E	.22¾		.22¾	
Steam refined:				
630 light green (treated)	.15		.15	
600 light green (untreated)	.07	.09	.07	.09
600 dark green (untreated)	.05	.07	.05	.07
PENNSYLVANIA—				
600 S.R.	.18½	.19	.18½	.19
650 S.R.	.21	.21½	.21	.21½
600 Pennsylvania flash	.22	.22½	.22	.22½
630 flash	.26½	.27	.26½	.27
600 Warren E filtered	.21½	.22	.21½	.22
Pennsylvania Grade bright stocks:				
No. 8 color, 145-50 at 210; 540-550 flash:				
10 pour test	.29	.29½	.29	.29½
15 pour test	.28½	.29	.28½	.29
20 pour test	.28	.28½	.28	.28½
25 pour test	.27½	.28	.27½	.28

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—	Apr. 10		Apr. 3	
124-126 white crude scale	.03⅝	.03¾	.03¾	.03⅞
PENNSYLVANIA—				
122-124	.0405		.0405	
124-126	.04⅛		.04⅛	
NEW YORK HARBOR—				
Wax (a.m.p.) in bags fully refined:				
120-122	.0420	.0430	.0430	.0455
123-125	.0435	.0460	.04½	.0470
125-127	.0445	.0470	.0455	.0480
128-130	.0480	.0495		
130-132	.05	.0510	.0505	.0520
133-135	.0545	.0570	.0555	.0580
135-137	.0570	.0595	.0580	.0605
124-126 crude scale	.03¾	.04	.03¾	.04
Petrolatum in barrels in carload lots:				
Dark green	.01⅞	.02	.01⅞	.02
Amber	.02⅞	.03	.02⅞	.03
Extra amber	.03⅛	.03¼	.03¼	.03¼
Lily white	.06¾	.06⅞	.06¾	.06⅞
Snow white	.07¾	.07⅞	.07¾	.07⅞
Cream	.05⅝	.05¾	.05⅝	.05¾
CHICAGO (f.o.b. switching district)*—				
122-124 wax	.0465	.0475	.0465	.0475
125-127 wax	.0490	.0500	.0490	.0500
127-129 wax	.0505	.0515	.0505	.0515
130-132 wax	.0565	.0575	.0565	.0575
132-134 wax	.0590	.0600	.0590	.0600

*Cents per pound on carlot orders in burlap bags of 225 lbs. approx. Add 3° F. a.m.p.

Export Prices

GASOLINE

GULF COAST—	Apr. 10		Apr. 3	
U. S. Motor	.04⅛	.04¼	.04¼	.04⅜
60-62 400	.04¼	.04⅜	.04⅜	.04½
61-63 390	.04⅜	.04½	.04½	.04⅝
64-66 375	.04⅝	.04¾	.04¾	.04⅞
LOS ANGELES, CALIF.—				
U. S. Motor grades:				
53-55 octane	.04	.04¼	.04	.04¼
55-65 octane	.04¼	.04½	.04¼	.04½
65-67 octane	.04½	.04¾	.04½	.04¾
67-69 octane	.04¾	.05	.04¾	.05
Above 69 octane	.05	.05¼	.05	.05¼
58-60 400 endpoint	.04¾	.05½	.05¾	.05½

KEROSENE

GULF COAST—				
41-43 prime white	.04½	.04¼	.04½	.04¼
41-43 water white	.04¼	.04⅜	.04¼	.04⅜
44 water white	.04⅜	.04½	.04⅜	.04½
LOS ANGELES, CALIF.—				
41-43 water white	.04¼	.04½	.04¼	.04½

LUBRICANTS

NEW YORK (f.a.s. in bbls.)—				
Cylinder Stocks:				
600 Warren E	.28	.29	.28	.29
600 S.R. unfiltered	.26	.26½	.26	.26½
650 S.R. unfiltered	.28	.28½	.28	.28½
600 flash S.R.	.29	.29½	.29	.29½
630 flash S.R.	.33	.33½	.33	.33½
Bright stock, 8 color	.34½	.35½	.34½	.35½
Bright stock, 6½ plus, dil.	.33	.34	.33	.34

NEUTRAL OILS

200-3 color	.34	.35	.34	.35
150-3 color	.29	.30	.29	.30

PARAFFIN WAX (Fully Refined)

NEW YORK (prices per pound)—					
120-122	a.m.p.	.0405	.04¼	.04¼	.04⅜
123-125	a.m.p.	.0430	.0455	.0420	.0465
125-127	a.m.p.	.0440	.0465	.04½	.04¾
128-130	a.m.p.	.04¾	.0490		
130-132	a.m.p.	.0495	.0505	.0490	.0515
133-135	a.m.p.	.0540	.0565	.05½	.05¾
135-137	a.m.p.	.0565	.0590	.05¾	.06

Crude Oil Gravity Table

Degrees gravity—	1 Oklahoma and Kansas	2 North Texas, Central Texas and East Central Texas	3 North Louisiana and Arkansas	4 Gray County, Texas	5 Carson, Hutchinson, and Moore Counties, Texas	6 Conroe, Texas	7 Salt Creek, Wyo.	8 Gulf Coast, Texas, and Louisiana	9 Gulf Coast, Texas, and Louisiana	10 Cotton Valley, Louisiana
Below 20	....	....	....	....	....	....	....	$.82	$.82	....
20-20.9	....	....	....	....	....	....	....	.84	.84	....
21-21.9	....	....	....	....	....	....	....	.86	.86	....
22-22.9	....	....	....	....	....	....	....	.88	.88	....
23-23.9	....	....	....	....	....	....	....	.90	.90	....
24-24.9	....	....	....	....	....	....	....	.92	.92	....
Below 25	*$.76	....	....	....	....	....	....	....	....	$.70
25-25.9	*.78	....	....	....	....	....	....	.94	.94	.72
26-26.9	*.80	....	....	....	....	....	....	.96	.96	.74
27-27.9	*.82	....	....	....	....	....	....	.98	.98	.76
28-28.9	*.84	....	....	....	....	....	....	1.00	1.00	.78
Below 29	.84	$.79	$.79	....	....	....	$.84	....	....	....
29-29.9	.86	.81	.81	....	....	....	.86	1.02	1.02	.80
30-30.9	.88	.83	.83	....	....	....	.88	1.04	1.04	.82
31-31.9	.90	.85	.85	....	....	....	.90	1.06	1.05	.84
32-32.9	.92	.87	.87	....	....	....	.92	1.08	1.06	.86
33-33.9	.94	.89	.89	....	....	....	.94	1.10	1.07	.88
34-34.9	.96	.91	.91	....	....	....	.96	1.12	1.08	.90
Below 35	....	....	....	$.79	$.69	....	....	....	....	....
35-35.9	.98	.92	.93	.81	.71	$1.09	.98	1.12	1.09	.92
36-36.9	1.00	.95	.95	.83	.73	1.11	1.00	1.12	1.10	.94
37-37.9	1.02	.97	.97	.85	.75	1.13	1.02	1.12	1.11	.96
38-38.9	1.04	.99	.99	.87	.77	1.15	1.04	1.12	1.12	.98
39-39.9	1.06	1.01	1.01	.89	.79	1.17	1.06	1.12	1.13	1.00
40 and over	1.08	1.03	1.03	.91	.81	1.19	1.08	1.12	1.14	1.02

*The following companies purchasing crude oil in Kansas or Oklahoma, or both, begin their price schedules: Below 25 degrees, 76 cents; 25-25.9 degrees, 78 cents, with 2 cents added for each degree upward to 40 and over at $1.08: Carter Oil Co., Magnolia Petroleum Co., Pure Oil Co., Rock Island Refining Co., Shell Petroleum Corp., Sinclair Prairie Oil Marketing Co., Skelly Oil Co., and Wilcox Oil & Gas Co. All others begin their schedule at below 26 degrees, 84 cents, excepting Phillex Oil Co., which begins with below 31 degrees at 88 cents.

Column 1—Effective September 29, Texas Co. in Oklahoma; Stanolind Crude Oil Purchasing Co. in Kansas and Oklahoma; Anderson & Prichard, Inc., in Oklahoma; Bell Oil & Gas Co. in Oklahoma; Carter Oil Co. in Oklahoma and Kansas; Deep Rock Oil Co. in Oklahoma; Derby Oil Co. in Kansas; Globe Refining Co. in Oklahoma; Golden Rule Refining Co. in Kansas; Gypsy Oil Co. in Oklahoma and Kansas; Kanotex Refining Co. in Kansas; Magnolia Petroleum Co. in Oklahoma; Mid-Continent Petroleum Corp. in Oklahoma; National Refining Co. in Kansas and Oklahoma; Shell Petroleum Corp. in Kansas and Oklahoma; Sinclair Prairie Oil Marketing Co. in Kansas and Oklahoma; Texas Co. in Oklahoma; Tide Water Oil Co. in Oklahoma; Vickers Refining Co. in Kansas; Continental Oil Co. in Kansas and Oklahoma; Empire Pipe Line Co. in Oklahoma and Kansas; Phillex Oil Co. in Kansas and Oklahoma; Pure Oil Co. in Oklahoma; Skelly Oil Co. in Kansas. Effective September 29, by White Eagle Oil Corp. in Kansas; on October 1 by Barnsdall Refineries, Inc., in Oklahoma.

Column 2—Effective September 29, by Texas Co., Stanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Sinclair Prairie Oil Marketing Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Bell Oil & Gas Co., Continental Oil Co. Effective September 29, in the Van Pool, Van Zandt County, Pure Oil Co. posted below 29 degrees, 84 cents, with 2 cents added for each degree up to 40 and over at $1.08.

Column 3—Effective September 29, by Texas Co., Magnolia Petroleum Co., Gulf Refining Co. Effective December 22, Stanolind Oil & Gas Co. in Pine Island, Louisiana, and Marion County, Texas, posted below 29 degrees, 79 cents, with 2 cents added for each degree up to 40 and over at $1.08. Effective March 17, 1934, by Standard Oil Co. of Louisiana and Louisiana Oil Refining Co. Starting with below 25 degrees, 71 cents, adding 2 cents for each degree upward to 40 and over at $1.08.

Column 4—Effective September 29, by Texas Co., Humble Oil & Refining Co., Magnolia Petroleum Co., Sinclair Prairie Oil Marketing Co., and H. F. Wilcox Oil & Gas Co. On same day Phillex Oil Co. posted below 31 degrees, 71 cents, with 2 cents added for each degree up to 40 and over at 91 cents.

Column 5—Effective September 29, by Texas Co., Humble Oil & Refining Co., Gulf Pipe Line Co., Magnolia Petroleum Co., Wilcox Oil & Gas Co., Continental Oil Co. On same day, Phillex Oil Co. posted below 31 degrees, 61 cents, with 2 cents added for each degree upward to 40 and over at 81 cents.

Column 6—Effective September 29, by Humble Oil & Refining Co. and Tide Water Oil Co., and on September 30, by Texas Co. which on September 29 had posted a schedule of $1.07 to $1.13 with a 1-cent spread on each degree.

Column 7—Effective September 29 by Stanolind Oil & Gas Co.

Column 8—Effective September 29, by Humble Oil & Refining Co., Gulf Pipe Line Co., Shell Petroleum Corp., Pure Oil Co., Sinclair Prairie Oil Marketing Co. On October 2, Magnolia Petroleum Co. posted Lockport, Louisiana: 30-30.9 degrees, 84 cents, with 2 cents added for each degree upward to 84 and over at $1.12, and in Cameron Meadows and Iowa, Louisiana: Below 30 degrees, 72 cents with 2 cents added for each degree up to 84 and over at $1.02. These prices were 2 cents higher on each degree than Magnolia prices posted on September 29. Effective September 29, Shell Petroleum Corp. posted in Iowa, Louisiana, district: Below 30 degrees, 70 cents, with 2 cents added for each degree upward to 84 degrees and over at $1; and in Black Bayou and White Castle, Louisiana: Below 30 degrees, 80 cents, with 2 cents added for each degree upward to 84 degrees and over at $1.10.

Column 9—Effective September 30, Texas Co. (On September 29, Texas Co. had posted a schedule 2 cents lower on each degree, but changed it on September 30.)

Column 10—Effective September 29, by Louisiana Oil Refining Co.

(California Crude Oil Prices on Page 71)

Crude Oil Prices

Oklahoma, Kansas, North Central and East Central Texas

East Texas	$1.00
Stratman, Kans. (Sept. 29, 1933)	1.08
Corsicana (heavy) (June 17, 1933)*	.30
Other fields	(See gravity table)

Note—In East Texas, effective September 29, 1933, by Texas Co., Stanolind Crude Oil Purchasing Co., Humble Oil & Refining Co., Shell Petroleum Corp., Gulf Pipe Line Co., Tide Water Oil Co., Sinclair Prairie Oil Marketing Co., Magnolia Petroleum Co., Sun Oil Co., Panola Pipe Line Co., and Empire Oil & Refining Co.
*Magnolia Petroleum Co.

West Texas

Crane, Upton, Crockett, Howard, Glasscock, Mitchell (Sept. 29, 1933)	$ .70
Ector, Winkler and Pecos Counties and Lea County, New Mexico (Sept. 29, 1933)	.75
Pecos County, Yates shallow pool (Sept. 29, 1933)*	.65
Jones and Fisher Counties.	See gravity table.

Note—Effective September 29, 1933, by Humble Oil & Refining Co., Texas Co., Gulf Pipe Line Co., Shell Petroleum Corp., Magnolia Petroleum Co., and by Stanolind Oil & Gas Co. in Winkler County, Texas.
*Shell Petroleum Corp.

Gulf Coast

Grade A and Grade B specifications discontinued by leading buyers ..... (See gravity table)

Tomball (see note)*	$1.15
Livingston (Sept. 29, 1933)†	1.00
Cleveland (Jan. 11, 1934)	1.00
Greta (Sept. 29, 1933)	.85
Refugio, light	(See gravity table)
Refugio, heavy (Sept. 29, 1933)‡	.85
Markham and High Island	(See Gulf Coast gravity table)
Conroe	(See Conroe gravity table)

Note—Tomball, effective September 29, by Humble Oil & Refining Co., and October 2 by Magnolia Petroleum Co., and November 10 by Stanolind Oil & Gas Co.
*Greta posted by Texas Co. †Shell Petroleum Corp. ‡Refugio heavy, by Humble Oil & Refining Co. Cleveland (Liberty County), posted by Magnolia Petroleum Co.

South Central and Southwest Texas

(See note below table)

Darst Creek	$.87
Mirando	.80
Luling (Sept. 29, 1933)	.75
Pettus	1.05
Salt Flat	.87
Lytton Springs (Sept. 29, 1933)	.95
Duval County (Sept. 29, 1933)	.80
Saxet	.85

Note—Effective on September 29 by Humble Oil & Refining Co., in Darst Creek, Mirando, Pettus, Salt Flat and Saxet. Effective September 29 in Darst Creek by Gulf Pipe Line Co. and Texas Co. Effective October 2 by Magnolia Petroleum Co. Effective in Pettus and Salt Flat on September 29 by Humble Oil & Refining Co. and Gulf Pipe Line Co. Luling and Lytton Springs by Magnolia Petroleum Co. Duval County by Texas Co. Saxet, effective September 29, by Humble Oil & Refining Co. and Texas Co.

(Continued on Page 71)

TANK WAGON MARKETS

Quotations for gasoline and kerosene in United States, as furnished by the larger marketing concerns, include taxes

April 10, 1934

Taxes

The gasoline quotations given in the following tables include the 1 cent Federal tax, as well as state, county and city taxes. The gasoline quoted is the regular or standard grade. In most marketing areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank wagon, or 3 cents a gallon off retail prices, is permitted for purchases running between 3,000 and 10,000 gallons a month, and 2 cents a gallon off tank wagon, or 4 cents a gallon off retail prices, for purchases in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
Denver, Colo.	15.0	17.0	6.0	10.0
Pueblo	16.0	18.0	6.0	13.0
Grand Junction	21.5	23.5	6.0	15.0
Casper, Wyo.	18.0	20.0	5.0	11.5
Cheyenne	18.0	20.0	5.0	13.0
Butte, Mont.	21.0	23.0	5.0	17.5
Billings	20.0	22.0	6.0	16.5
Helena	22.5	24.5	6.0	17.5
Great Falls	22.5	24.5	6.0	17.5
Salt Lake, Utah	21.0	23.0	5.0	16.0
Boise, Idaho	17.5	19.5	6.0	18.0
Twin Falls	20.5	22.5	6.0	18.0
Albu'que, N. M.	19.5	21.5	*7.0	13.0

*One-cent city tax.

Effective March 1, 1934, discount to dealers with or without contract throughout Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Standard Oil Co. (Indiana)

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
Chicago	14.8	16.8	4.0	8.0
Decatur, Ill.	16.7	18.7	4.0	10.2
E. St. Louis	16.0	18.0	4.0	9.5
Joliet	16.7	18.7	4.0	10.2
Peoria	16.7	16.7	4.0	10.2
Quincy	16.6	18.6	4.0	10.0
Davenport Ia.	16.6	18.6	4.0	10.1
Des Moines	16.6	18.6	4.0	8.0
Mason City	16.6	18.6	4.0	10.1
Sioux City	16.2	18.2	4.0	9.7
Duluth, Minn.	17.2	19.2	4.0	10.4
Mankato	16.8	18.8	4.0	9.3
Minneapolis	15.4	17.4	4.0	10.4
LaCrosse, Wis.	18.3	20.3	4.8	10.8
Green Bay	17.7	19.7	5.0	10.2
Milwaukee	17.1	17.1	5.0	9.7
Madison	17.4	19.4	5.0	9.9
Detroit, Mich.	17.0	19.0	4.0	8.5
Grand Rapids	16.7	18.7	4.0	10.2
Saginaw	17.0	19.0	4.0	10.5
Evansville, Ind.	17.7	19.7	5.0	10.0
Indianapolis	17.9	19.9	5.0	10.2
South Bend	18.2	20.2	5.0	10.5
Fargo, N. Dak.	17.9	19.9	4.0	12.1
Huron, S. Dak.	18.8	20.8	5.0	11.4
Sioux Falls	18.4	20.4	5.0	10.9
K. C., Mo.*	15.7	17.7	4.0	8.2
Springfield	15.1	17.1	3.5	9.1
St. Louis	15.0	17.0	3.5	7.5
St. Joseph*	15.3	17.3	4.0	8.3
Wichita, Kans.	14.6	16.6	4.0	8.1
Bartlesville, Ok.	16.0	18.5	5.0	8.5

*State tax 2 cents, 1-cent city tax and 1-cent Federal tax.

Discounts to dealers, effective March 1, 1934: Undivided accounts, 4 cents a gallon on Red Crown Ethyl and Standard Red Crown, divided accounts, 3½ cents a gallon on Red Crown Ethyl and Standard Red Crown.

Stanolex Furnace Oil in Chicago

Effective March 5, 1934, prices f.o.b. Chicago, tank wagon prices: No. 1 (36-40 lt. stw. zero), under 100 gallons, 8¼ cents; No. 2 (30-34 stw. zero), 7¾ cents; No. 3 (22-26 zero), 7¼ cents; No. 4 under 300 gallons (12-16 zero), 5¾ cents; viscosity of No. 4, 90-115 at 100° F.; No. 5 under 300 gallons, 5⅛ cents; for deliveries of 100 gallons or more deduct 1 cent.

Naphtha

	Tank wagon*
Oleum spirits	16.9
V.M.&P. naphtha	18.0
Cleaners' naphtha	18.0
Stanisol	18.0

*Prices include 3-cent Illinois tax, but not 1-cent Federal tax.

Prices f.o.b. Chicago. September 13, 1933. Each of above prices subject to discount of 1 cent per gallon for 150-gallon lots if covered by contracts.

Southern District

STANDARD OIL CO. (KENTUCKY)

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
Atlanta, Ga.	18.0	20.0	7.0	14.5
Augusta	19.5	21.5	7.0	14.0
Macon	19.5	21.5	7.0	14.5
Savannah	19.5	21.5	7.0	14.0
Birm'ham, Ala.	21.5	23.5	8.0	14.0
Mobile	20.5	22.5	8.0	14.0
Montgomery	21.0	23.0	8.0	15.0
Jackson, Miss.	18.5	20.5	7.0	14.0
Vicksburg	16.5	18.5	7.0	14.0
Jack'ville, Fla.	19.5	21.5	8.0	11.5
Miami	19.5	21.5	8.0	13.5
Pensacola	19.5	21.5	8.0	13.5
Tampa	19.5	21.5	8.0	12.5
Lexington, Ky.	15.5	17.5	6.0	11.5
Covington	17.5	19.5	6.0	11.5
Louisville	17.5	19.5	6.0	11.5
Paducah	14.5	16.5	6.0	11.0

In addition to the state tax of 4 cents on gasoline, Montgomery has city and county tax of 2 cents on gasoline and one-half cent on kerosene. Kerosene prices in Georgia and Mississippi include 1 cent state tax; in Alabama, an inspection fee of one-half cent on kerosene and one-fortieth cent on gasoline; in Florida an inspection fee of one-eighth cent on kerosene and gasoline. To Pensacola, Mobile and Birmingham state taxes on gasoline add 1 cent city tax.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
Dallas, Tex.	17.0	19.0	5.0	6.0
Fort Worth	17.0	19.0	5.0	6.0
Houston	15.0	17.0	5.0	8.5
San Antonio	17.0	19.0	5.0	8.5
El Paso	17.5	19.5	5.0	11.0
Muskogee, Ok.	16.0	18.0	5.0	7.5
Okla. City	16.0	18.0	5.0	8.5
Tulsa	16.0	18.0	5.0	8.5
Ft. Smith, Ark.	14.5	16.5	5.0	8.0
Little Rock	16.5	18.5	7.5	9.0
Texarkana	15.0	17.0	5.0	8.5

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
Atl'tic City, N.J.	17.5	16.0	4.0	10.0
Newark	16.8	16.3	4.0	9.5
Annapolis, Md.	18.1	17.6	5.0	10.0
Baltimore	17.6	17.1	5.0	10.0
Cumberland	19.1	18.5	5.0	12.7
Wash'g'n, D. C.	15.3	15.3	3.0	11.5
Danville, Va.	20.2	19.7	6.0	12.9
Norfolk	18.7	14.5	6.0	11.3
Petersburg	19.5	19.0	6.0	11.4
Richmond	19.1	15.6	6.0	11.7
Roanoke	20.3	15.4	6.0	12.9
Charls'n, W.Va.	18.5	18.0	5.0	12.6
Parkersburg	17.8	15.9	5.0	11.2
Wheeling	18.5	18.0	5.0	12.2
Charlotte, N. C.	21.9	21.0	7.0	13.5
Hickory	22.2	21.0	7.0	13.7
Mt. Airy	22.2	21.7	7.0	13.8
Raleigh	21.7	21.0	7.0	13.3
Salisbury	21.0	21.5	7.0	13.6
Charleston, S.C.	19.7	19.2	7.0	11.3
Columbia	21.5	21.0	7.0	13.2
Spartanburg	21.9	21.0	7.0	13.5

Note—Dealer contracts are written at 2½ cents above the posted tank car price, less a voluntary allowance of one-half cent per gallon. This affects all points. Kerosene 1 cent off tank wagon for 25 gallons or more under contract except New Jersey and Baltimore, Md.

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
Ohio points	16.5	17.5	5.0	*12.5

*Includes state tax of 1 cent, effective July 22

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
Omaha	17.3	19.3	5.0	9.0
McCook	18.4	18.4	5.0	8.0
Norfolk	17.8	19.8	6.0	8.5
North Platte	18.8	20.8	5.0	9.0
Scottsbluff	18.8	19.3	5.0	11.0

Note: Discount to dealers, including any rentals under lease and agency agreements: Undivided accounts, Standard Red Crown and Red Crown Ethyl Gasoline 4 cents, Reliance (third brand) 3 cents, under service station price. Divided accounts, Standard Red Crown Ethyl Gasoline 3½ cents, Reliance (third brand) 2½ cents, under service station price. Discounts to consumers covered only by form CD-1, official commercial consumer contract.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
N. Orleans, La.	19.3	16.0	*7.0	†12.0
Baton Rouge	18.7	18.2	6.0	†12.0
Alexandria	19.6	19.1	*7.0	†10.0
Lafayette	19.8	19.3	*7.0	†12.0
Lake Charles	19.7	19.2	*7.0	†12.0
Shreveport	17.5	15.5	6.0	†12.0
Knoxville, Tenn.	23.2	22.7	8.0	13.0
Memphis	21.6	21.0	8.0	9.5
Chattanooga	23.0	22.5	8.0	11.0
Nashville	22.4	16.5	8.0	11.0
Bristol	23.0	19.0	8.0	14.0

*Includes city tax of 1 cent. †Louisiana kerosene prices include 1-cent state tax.

Commercial consumers for tank wagon delivery pay following amounts over tank car price, basis yearly deliveries:

1,000 to 75,000 gallons	2.5
75,000 to 300,000 gallons	1.5
Over 300,000 gallons	1.0

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA*

	Gasoline: Tank wagon†	Gasoline: Posted retail	Incl'ds tax of	Kero. tank wagon
San Francisco	13.0	15.0	4.0	12.5
Los Angeles	10.0	13.0	4.0	12.5
Fresno, Calif.	12.0	15.0	4.0	14.0
Phoenix, Ariz.	18.5	21.5	6.0	‡16.0
Reno, Nev.	18.0	21.0	5.0	15.5
Portland, Ore.	19.0	22.0	5.0	13.5
Seattle, Wash.	15.0	18.0	6.0	13.5
Tacoma	15.0	18.0	6.0	13.5
Spokane	21.0	24.0	6.0	18.0

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where the discount is 1 cent.

‡Includes 5 cents state tax.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
Philadelphia, Pa.	14.5	16.5	4.0	10.0
Pittsburgh	15.0	17.0	4.0	10.0
Allentown	14.5	16.5	4.0	10.0
Erie	14.0	16.0	4.0	9.0
Scranton	15.0	17.0	4.0	10.0
Altoona	15.0	17.0	4.0	10.0
Dover, Del.	15.0	17.0	4.0	10.0
Wilmington	14.0	16.0	4.0	10.0
Boston, Mass.	14.5	16.5	4.0	8.5
Springfield	15.1	17.1	4.0	8.5
Worcester	15.5	17.5	4.0	9.0
Hartford, Conn.	14.4	16.4	3.0	9.0
New Haven	14.2	16.2	3.0	9.0
Providence, R.I.	12.5	14.5	3.0	8.5

New York and Part of New England

STANDARD OIL CO. OF NEW YORK

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
Albany, N. Y.	16.1	17.1	4.0	9.0
Met. New York	14.5	15.5	4.0	9.0
Buffalo	16.0	17.0	4.0	8.5
Rochester	16.0	17.0	4.0	8.5
Syracuse	16.0	17.0	4.0	9.0
Boston, Mass.	15.5	16.5	4.0	8.0
Portland, Me.	17.2	18.2	5.0	8.5
Manch't'r, N.H.	18.2	19.2	5.0	9.0
Burlington, Vt.	18.8	19.8	5.0	9.5

Canada*

IMPERIAL OIL, LTD.

Imperial 3-Star Gasoline

	Gasoline: Tank wagon	Gasoline: Service station	Incl'ds tax of	Kero. tank wagon
Hamilton, Ont.†	26.5	27.5	6.0	17.5
Toronto, Ont.†	26.5	27.5	6.0	17.5
Brandon, Man.*	31.0	34.5	7.0	22.5
Winnipeg, Man.	28.7	31.7	7.0	20.2
Regina, Sask.	29.0	32.0	6.0	21.5
Saskatoon, Sask.	31.8	34.8	6.0	24.3
Edmonton, Alta.	31.2	34.2	6.0	23.7
Calgary, Alta.	28.5	31.5	6.0	21.0
Vanc'ver, B.C.†	30.0	31.0	7.0	24.0
Montreal, Que.	24.0	27.0	6.0	17.0
St. Johns, N.B.	26.5	30.5	7.0	21.0
Halifax, N.S.	25.5	29.5	6.0	21.0

*Imperial gallon used in Canada. †Dealer discount posted tank wagon on gasoline in Ontario and British Columbia subject to dealer's discount of 3 cents per gallon.

Retail Price Changes

Regular-Grade Gasoline and Kerosene

Continental Oil Co. March 31 reduced tank wagon and service station prices of gasoline 3 cents in Denver; March 27, reduced tank wagon and service station prices one-half cent in Twin Falls; March 18, reduced tank wagon and service station prices 5½ cents in Boise.

Standard Oil Co. of Louisiana March 24 reduced service station price of gasoline 1 cent in New Orleans; March 25, reduced it one-half cent further.

Standard Oil Co. of California April 5 reduced tank wagon and service station prices of gasoline 2 cents in Reno.

Atlantic Refining Co. March 28 reduced tank wagon price of gasoline 1 cent in Pennsylvania and tank wagon price of kerosene 1 cent in Erie. April 4, reduced tank wagon price of gasoline 1½ cents and service station price one-half cent in Dover; same date, reduced tank wagon price of gasoline 2½ cents and service station price 1 cent in Wilmington. March 27, reduced tank wagon price of gasoline 1½ cents and service station price one-half cent in Boston. March 30, reduced tank wagon price of gasoline 1½ cents and service station price one-half cent in Springfield. February 9, reduced tank wagon price of gasoline 1 cent in Hartford and New Haven. March 28, reduced tank wagon price of gasoline 2 cents and service station price 1 cent in Providence.

Standard Oil Co. of New Jersey March 30 reduced service station price of gasoline one-half cent in Parkersburg; March 31, reduced it .9 cent further.

Standard Oil Co. of New York, April 10, reduced tank wagon and service station prices of gasoline one-half cent in Buffalo, Rochester and Syracuse. April 6 it reduced tank wagon price of kerosene one-half cent in Boston.

Magnolia Petroleum Co., March 30, reduced tank wagon price of kerosene one-half cent in Muskogee.

Eastern Tank Wagon and Retail Market Unsettled

(Continued from Page 37)

utors sellers here to buy material from other territories.

Bunker C fuel is quoted at $1.30 per barrel and Diesel oil $1.95 per barrel and 4.5 cents per gallon in tank cars. Overhead gas oils, for which which there is fair demand, is now quoted at a low of 4¼ cents. Prices on kerosene range from 5½ to 6 cents for domestic movement in tank car lots.

Pennsylvania Grade stocks and neutrals appear firm in this market although trading is not as heavy as it was earlier in the year. The 200 and 150-grade neutrals are scarce with many buyers. It is said that more of the Pennsylvania Grade stocks and neutrals will be used this summer in compounding branded grades of motor oils by large and small companies. These companies in some cases do not offer a 100 per cent Pennsylvania Grade oil but blend with Mid-Continent stocks.

Export Markets

The export market on gasoline at the Gulf Coast continues weak. There are few inquiries from European buyers. Quotations as low as 4⅝ cents are heard on 64-66, 375 endpoint at the Gulf Coast and 4⅛ cents on U. S. Motor. The larger sellers are quoting at least one-eighth cent above these prices. Kerosene is not freely offered although new business is slow and prices are firm at last week's levels.

STEAM ENGINEERING

E. W. Nick, president of the Northern Equipment Co. Erie, Pa., will present an illustrated lecture covering the progress of steam engineering during the past 50 years before the Young Engineers Club, Tulsa, on the evening of April 13.

Recovery in Chicago Refinery Market Is Reported Becoming More Pronounced

BY SPECIAL CORRESPONDENT

CHICAGO, Apr. 9.—Recovery of the refinery gasoline market was becoming more pronounced as the week opened, with important gains made in ruling quotations compared with a week earlier. Not only was the price higher, but the whole aspect of the market was undergoing a change. Refiners were once more taking a determined attitude in making quotations and were issuing substantially higher prices over April in cases where they were willing to sell ahead at all.

Many Plants Down

The wholesale closing down of refineries in various key refining districts is one of the elements in the firming of the tank car price structure. Sources of supply in the spot market have dwindled considerably and buyers are now forced to pay higher prices than they thought likely two weeks ago. Low octane motor gasoline crossed a low of 3½ cents late in the week and was above that figure as the new week opened. Moreover, with comparatively little material left in carlot marketers' hands that was purchased at lower prices, and with jobbers apparently not overburdened with stocks, it is felt there is a good chance for running the market up to still higher levels.

Consumption Good

Consumption is all that could be desired. Weather conditions have been fair to good and the recent heavy purchases of new cars are being reflected in retail gallonage. Tank wagon and service station market conditions still leave much room for improvement. Major companies continue to meet competition by making local cuts. In a good many communities the cut prices are reported to be those of trackside station operators. Some jobbers are complaining they are "caught in the middle" between majors and trackside operators, and are unable to operate to advantage.

Recent weakness in natural gasoline has hindered the extent of improvement in refinery gasolines. A good many jobbers are reported buying stabilized natural at this time. Demand for better octane gasolines at retail continues.

Kerosene

Kerosene has been growing scarcer and firmer in the market for some time. It is staying close to gasoline price. Farmers have been doing considerable field work throughout the central region and tractors are being used widely. There is no surplus material for the market.

Furnace Oils

Firmness of kerosene keeps the furnace oils likewise strong, along with late-season call for a little heating oil, here and there. Prices are firm to stronger all along the line. The zero fuels also are holding their own in good shape.

Naphthas and Solvents

Naphthas and solvents remain quiet and without particular feature. They are in moderate demand and are following the gasoline price trend.

Heavy Fuels

The real strength, however, is still being shown by the heavy fuels and gas oils, with refiners keener than ever for this material for cracking purposes, as long as crude remains firmly fixed at $1 per barrel. Refiners on the one hand and a good industrial demand on the other are keeping all material off the market that can be had at any reasonable price, and some sellers have been able to get higher prices for 34-36 and similar grades.

Lubricants

Lubricants are steady, although somewhat slow at this point. Jobbers and compounders are taking moderate amounts of material.

Petroleum Coke

Petroleum coke has been showing a little easiness, apparently more of a seasonal nature than anything else. Lump is reported available at slightly lower prices.

Wax

No change in the strength of waxes has been noted. The volume of inquiries and sales is still at a good level.

JOSEPH W. HUSSEY DIES

KINGSVILLE, Ontario, Apr. 7.—Joseph W. Hussey, widely known in Ontario as a drilling contractor, died suddenly a few days ago while on a motor trip from Dunnville to his home here. Born in Lindsay, Ontario, about 55 years ago, Mr. Hussey learned the driller's trade in the Petrolia Field, but about 20 years ago moved to Dunnville and later to Kingsville.

Crude Oil Prices

(Continued from Page 69)

Effective September 29 in Salt Flat by Shell Petroleum Corp.

Rocky Mountain States

Iles, light (Sept. 29, 1933)	$.96
Iles, heavy (Sept. 29, 1933)	.90
Florence, Colo. (June 17, 1933)	.30
Fort Collins and Wellington, Colo. (June 17)	(See Salt Creek prices)
Big Muddy (Sept. 29, 1933)	1.01
Frannie, light (Sept. 29, 1933)	.87
Frannie, heavy (Sept. 29, 1933)	.62
Salt Creek and LaBarge (Sept. 9, 1933)	See Stanolind Mid-Continent price schedule
Grass Creek, light (Sept. 29, 1933)	1.18
Grass Creek, heavy (Dec. 15, 1932)	.45
Elk Basin (Sept. 29, 1933)	1.18
Rock Creek (Sept. 29, 1933)	1.02
Dutton Creek (July 8, 1933)	See Mid-Continent gravity prices
Lance Creek (Dec. 16, 1932)	.92
Poison Spider (Mar. 5, 1931)	.70
Hudson (June 2, 1931)	.45
Lander (Mar. 5, 1931)	.40
Rex Lake (Feb. 22, 1930)	1.10
Osage	1.08
Lost Soldier (Sept. 30, 1933)	.88
Hamilton Dome (Dec. 16, 1932)	.35
Torchlight (Sept. 29, 1933)	1.18
Greybull (Sept. 29, 1933)	1.18
Pondera	1.15
Sunburst (Sept. 29, 1933)	1.35
Cat Creek, Montana	1.07
Hogback (Sept. 29, 1933)	1.11
Lea County, N. Mex. (Sept. 29, 1933)	.75
Maljamar (Sept. 29, 1933)	.70
Artesia-Jackson (Dec. 1, 1933)*	.75

Note—Salt Creek, Torchlight, Elk Basin, Grass Creek, Frannie, Greybull, Hogback and Iles by Stanolind Oil & Gas Co. Elk Basin, Grass Creek light, Big Muddy, Rock Creek and Sunburst by Ohio Oil Co. Lost Soldier posted by Producers & Refiners Corp. Artesia, Jackson and Maljamar posted by Continental Oil Co. Lea County, effective September 29, 1933, by Humble Oil & Refining Co. and other buyers; Fort Collins, Wellington, Orchard, Florence, Big Muddy, Cat Creek, Rattlesnake and Table Mesa by Continental Oil Co. Osage posted by Arro.

*Continental Oil Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades)	$.70
Tullos-Urania, La. (Jan. 13, 1934)	.87
Nevada, Ark. (Sept. 29, 1933)	.60
East El Dorado (Sept. 29, 1933)	.70
Other fields	(See gravity table)

Note—Smackover: Effective September 29, 1933, Texas Co., Magnolia Petroleum Co., Standard of Louisiana, Louisiana Oil Refining Corp., Gulf Refining Co. and Phillips Petroleum Co. East El Dorado posted by Magnolia Petroleum Co. and Gulf Refining Co., Nevada by Standard Oil Co. of Louisiana. Urania posted by H. L. Hunt, Inc., and Louisiana Oil Refining Co.

Eastern States

TIDE WATER PIPE CO.
(Effective October 4, 1933)

Bradford, Pa.	$2.45
Allegany, N. Y.	2.45

SOUTH PENN OIL CO.
(Effective October 4, 1933)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field)	$2.45
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	2.12
Pennsylvania Grade Oil in Eureka Pipe Line lines	2.07
Pennsylvania Grade Oil in Buckeye Pipe Line lines (Jan. 29, 1934)	1.97
Corning Grade Oil in Buckeye Pipe Line Co.'s lines (Oct. 2, 1933)	1.33

PENNZOIL CO.
(Effective October 4, 1933)

Pennsylvania Grade Oil in National Transit Lines:	
Group A (Includes Cochran, Franklin, Hamilton and Doolittle districts.)	$2.37
Group B (Includes Titusville district.)	2.36
Group C (Includes Turkey and Tidioute districts.)	2.35
Group D (Includes Bear Creek and Porkey districts.)	2.34
Group E (Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredin, McJunkin, Jameson Kennerdell, Emlenton, Tiona, Lacy and Kinzua districts.)	2.33

Price depends on length of pipe line haul to plant at Oil City.

PURE OIL CO.
(Effective October 4, 1933)

Cabin Creek, W. Va.	$2.07
Bradford Hollow, W. Va.	2.07
Kelly Creek, W. Va.	2.07

Middle Western States

OHIO OIL CO.
(Effective September 29, 1933)

Lima	$1.30
Illinois (Jan. 5, 1934)	1.13
Princeton, Ind. (Jan. 5, 1934)	1.13
Plymouth	Shut in
Western Kentucky	1.16
Midland, Mich. (Sept. 30, 1933)*	1.02
Oceana, Mich. (Oct. 5, 1933)	.90
Somerset, Ky. (Sept. 30, 1933)	1.33
Hart County, Ky. (Oct. 1, 1932)	1.18

*Posted by Pure Oil Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted price. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted price includes premium. Hart County, Kentucky, crude purchased by Stoll Refining Co. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co.

Canada

Ontario (September 9, 1933):	
Petrolia*	$2.10
Oil Springs	2.17
Turner Valley (Mar. 5, 1934):†	
Clear naphtha	$2.87
Discolored naphtha	2.62
Crude oil, 50 gravity	2.44
Crude oil, 45 to 49.9	2.07
Crude oil, 40 to 44.9	1.50

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Mexico

Panuco*	$.72

*F.o.b. ship, based on December transactions and exclusive of production and export taxes and bar dues.

California Crude Oil Prices

STANDARD OIL CO OF CALIFORNIA

(Effective September 6, 1933)

For current purchases of crude oil at the well (unless otherwise specified). (All gravities above those quoted take highest price offered in that field.)

Gravity—	Long Beach	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda, Brea Canyon	Athens-Rosecrans	Torrance	Richfield	Whittier, La Habra	Montebello	Santa Fe Springs	La Habra-Coyote	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Coalinga	Coyote
offered in that field.)																	
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	....	$.65	$.65	$.65	$.65	....	$.65	$.57	$.57	$.57	$.65
15-15.9	.65	.65	.69	.69	.66	.69	....	.66	.66	.65	.65	....	.65	....	....	....	.65
16-16.9	.66	.65	.72	.73	.69	.73	....	.69	.67	.68	.65	....	.65	....	....	....	.65
17-17.9	.69	.65	.75	.76	.73	.76	....	.72	.70	.71	.65	....	.68	....	....	....	.68
18-18.9	.72	.65	.78	.80	.76	.79	....	.75	.74	.74	.65	....	.71	.61	.61	.59	.71
19-19.9	.75	.65	.81	.83	.80	.82	....	.78	.78	.78	.65	....	.74	.64	.65	.62	.74
20-20.9	.78	.68	.83	.87	.83	.85	....	.81	.82	.81	.66	....	.78	.67	.69	.65	.78
21-21.9	.81	.72	.86	.90	.87	.88	....	.83	.85	.84	.69	$.72	.81	.70	.73	.68	.81
22-22.9	.84	.76	.89	.94	.90	.92	....	.85	.89	.87	.72	.76	.84	.73	.76	.72	.84
23-23.9	.88	.81	.92	.97	.94	.95	$.83	.89	.93	.90	.76	.79	.87	.77	.79	.75	.87
24-24.9	.91	.85	.95	1.01	.97	.98	.86	.92	.97	.93	.80	.83	.90	.81	.82	.78	.90
25-25.9	.94	.89	.98	....	1.00	1.01	.90	.95	1.00	....	.85	.87	.93	.85	.85	.81	.93
26-26.9	.97	.93	1.01	....	1.04	1.04	.94	.98	1.04	....	.89	.90	.96	.89	.88	....	.96
27-27.9	1.00	.98	1.04	....	....	1.07	.97	....	1.08	....	....	.94	.99	.93	.91	....	.99
28-28.9	1.02	1.02	1.07	....	....	1.10	1.01	....	1.11	....	....	.98	1.02	.97	.94	....	1.02
29-29.9	1.06	1.05	1.09	....	....	....	1.04	....	1.15	....	....	1.01	1.05	1.01	.97	....	1.06
30-30.9	1.09	1.10	1.12	....	....	....	1.08	....	....	....	....	1.05	1.09	1.05	1.00	....	1.09
31-31.9	....	....	....	....	....	....	1.12	....	....	....	....	1.08	1.12	1.09	....	....	1.12
32-32.9	....	....	....	....	....	....	1.15	....	....	....	....	1.12	1.15	1.13	....	....	1.15
33-33.9	....	....	....	....	....	....	....	....	....	....	....	1.16	1.18	1.17	....	....	1.18
34-34.9	....	....	....	....	....	....	....	....	....	....	....	1.19	1.21	....	....	....	1.21
35-35.9	....	....	....	....	....	....	....	....	....	....	....	1.23	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	....	....	....	....	1.26	....	....	....	....	....
37-37.9	....	....	....	....	....	....	....	....	....	....	....	1.30	....	....	....	....	....
38-38.9	....	....	....	....	....	....	....	....	....	....	....	1.34	....	....	....	....	....

Additional Standard Oil Quotations

Elwood Terrace—F.o.b. ship, 33 degrees, $1.03; 34 degrees, $1.06; 35-35.9, $1.09; 36-36.9, $1.12; 37 degrees and over 1.15.

Newhall—14 degrees and over, 57 cents.

McKittrick and Kern River—14 degrees and over, 57 cents.

Wheeler Ridge—14 to 17.9 degrees, 57 cents; 18-18.9, 58 cents; 19-19.9, 61 cents; 20-20.9, 64 cents; 21-21.9, 67 cents; 22-22.9, 70 cents; 23-23.9, 73 cents; 24-24.9, 76 cents; 25 degrees and over, 79 cents.

Kettleman Hills—33-33.9 degrees, 93 cents; 34-34.9, 96 cents; 35-35.9, 99 cents; 36-36.9, $1.02; 37-37.9, $1.05; 38-38.9, $1.08; 39 degrees and over, $1.11.

The Texas Co. posted in Shiells Canyon, South Mountain and Santa Paula as follows: 14 to 17.9, 57 cents; 3 cents added for each degree up to and including 26-26.9 degrees at 84 cents; then 4 cents added for each degree up to and including 30 degrees and over at $1. Company posts Standard Oil Co.'s Montebello prices in Montebello and North Whittier, and posts Standard Oil Co. prices in Signal Hill, Alamitos Heights, Huntington Beach, Torrance, Richfield and Santa Fe Springs, all effective September 6.

General Petroleum Co. posts Standard Oil Co. prices in Athens, Rosecrans and Signal Hill; Alamitos Heights up to 26-26.9; Santa Fe Springs up to 35-35.9; Richfield up to 25-25.9; Brea Canyon and Olinda up to 25-25.9, and Torrance up to 25-25.9.

Union Oil Co., effective September 6, posts same price as Standard Oil Co. in all fields in which both purchase, excepting that in Athens-Rosecrans, Union Oil Co. posts 21-21.9, 72 cents, and 33-33.9, $1.18; 34-34.9, $1.21, and 35-35.9, $1.24.

Associated Oil Co., effective September 6, posted same prices for the same grades as Standard Oil Co. of California, excepting that in some fields its gravity scale stops as follows: Huntington Beach, 26 degrees and over; Seal Beach and Alamitos Heights, 24 degrees and over; Coyote Hills, 23 degrees and over; Richfield, 25 degrees and over; Torrance, 25 degrees and over; Inglewood, 24 degrees and over; Santa Fe Springs, 35 degrees and over; Midway-Sunset, Elk Hills, Buena Vista Hills, 30 degrees and over. Also Associated pays 52 cents for oil of 11 to 13.9 gravity in McKittrick, Kern Front, Kern River, Midway-Sunset, Elk Hills, Buena Vista Hills and Coalinga.

Play in Fault Line Area of Guadalupe County; New Edwards Lime Tests in Southwest Texas

SAN ANTONIO, Tex., Apr. 9.—The active leasing campaign along the fault line area of Guadalupe County along with several new tests for the Edwards lime and one test to be carried to the Trinity sand has aroused much interest throughout the Southwest Texas area.

H. H. Weinert and Seguin has taken a block of approximately 800 acres just northeast of Darst Creek Field and it is reported the contract calls for a test to the Trinity sand or 5,000 feet.

Weinert has also taken two other blocks southeast of Kingsbury in Guadalupe County and is obligated to drill two Edwards lime tests. One of the blocks, consisting of approximately 1,500 acres, centers around the Robert Hall, C. Espalier M. Besare, Wakefield and Stewart Surveys. The other block consists of approximately 2,000 acres and is just south of the 1,500-acre tract and lying in the W. Arrington, J. D. Pickens, A. J. Sowell, south part of the W. P. King, and the Wakefield and Stewart Surveys.

Another Edwards lime test is scheduled to be drilled southwest of the Darst Creek Field in the Seeligman area, in the north half of the Jacob Darst Survey on a 1,500-acre block taken by L. W. Conner and Weinert.

An active leasing campaign is also reported in progress in northern Goliad County with several blocks being taken within the last two weeks.

Starr County

In the Jeffries-Lambeth area of south central Starr County, Jeffries-Lambeth Drilling Co.'s No. 2 Starr County Cattle Co., which held the interest of operators throughout Southwest Texas when it came in last week estimated good for 125 bbls. daily, is now shut in. This well, 800 feet southeast of the company's No. 1 gasser, drilled 13 feet of oil sand topped at 2,505 feet. Total depth is 2,518 feet. About 12 miles north and 3 miles east of Roma, Great Plains Oil Co.'s No. 1 Sanches is still fishing for bailer with total depth of 3,517 feet and making considerable gas by heads. The eastern limits of the Cuevitas Pool was cut off during the week by completion of Sun Oil Co.'s No. 5-B M. Guerra which was abandoned as dry with total depth of 2,692 feet. It is approximately 1 mile east of nearest production. Sioux Oil Co.'s No. 5 Goodrich in Porcion 81, has been abandoned as dry with total depth of 1,408 feet. It had sand from 1,405-08 feet.

San Patricio County

Considerable attention is now being centered around the immediate area of C. B. Bunte's No. 1 J. D. Holland, south of Sinton in San Patricio County, reported running considerably higher than either of the two other tests drilling in the area. It topped the Discorbis at 4,017 feet or 49 feet higher than Atkins and O'Neil's No. 1 Welder. Late in the week Bunte's well was drilling below 4,190 feet. Atkins and O'Neil's No. 1 Welder, about 2 miles west of Angelita, was drilling below 4,500 feet. It topped the Discorbis at 4,066 feet and had top of the Heterostegina at 4,220 feet. Plymouth's No. 1 Welder, about 1½ miles north of Sinton, was drilling at 6,460 feet. Contract depth is 6,500 feet.

Duval County

In Duval County, Continental Oil Co.'s No. 1 Driscoll estate has been attracting attention. It tested salt water in sands from 2,922-49 feet and 2,964-74 feet. Late in the week it was drilling below 3,303 feet. In sand from 2,491-2,512 feet on a drill stem test it showed 11 thribbles of salt water and a show of oil and gas in five minutes. Mortimer's No. 1 W. R. Peters, another important wildcat test in Survey No. 176, topped the Mirando sand at 2,697 feet and tested salt water. It is preparing to plug back to the Government Wells sand topped at 2,542 feet and complete as a gas well. Before deepening it showed 15,000,000 feet of gas with no oil or water in the Government Wells sand from 2,542-53 feet.

Duval County marked up 10 completions for the past week, a dry hole in the East Cole Pool, one gas well in the Kohler Field and seven producers and one dry hole in the Government Wells Field. In the East Cole Field, Motes & Campbell's No. 1 Bruni was abandoned as dry with total depth of 2,895 feet. On a drill stem test from 2,850-71 feet it built up 25 pounds rock pressure in 20 minutes. In the Kohler Field Clark & Cowden's No. 2 J. M. Richardson has been completed for 4,000,000 feet of gas at 1,758 feet after plugging back from 1,797 feet. In the Government Wells Field, K. O. T. Oil Co.'s No. 3 Lundell has been abandoned with total depth of 2,427 feet. Cox & Hamon's No. 7 State was completed for 150 bbls. daily at 2,250 feet. Sun Oil Co.'s No. 44 Weiderkehr bottomed hole at 2,265 feet and made 700 bbls. daily. Sun's No. 45 was completed for 750 bbls. at 2,283 feet. No. 47 Weiderkehr bottomed hole at 2,261 feet and made 3 bbls. per hour through three-fourths inch choke. Magnolia Petroleum Co.'s No. 23 Duval County Ranch made 8 bbls. per hour through one-fourth inch choke with total depth of 2,335 feet. Central Producer's No. 2 Lupstack was completed for 10,000,000 feet of gas with a spray of estimated 50 bbls. oil daily at 2,317 feet. Russ and others' No. 5 Hahl had sand from 2,275-78 feet and made 45 bbls. daily.

Lee County

In Lee County, the area around Pederson's No. 1 Turner in the David Hudson Survey, is reported to be quite active, most deals being royalty transactions. This test is in the northeastern part of the county and along the Fault line structure. Royalty has jumped to as high as $60 per acre surrounding the well, which was preparing to spud late in the week.

McMullen County

In McMullen County, C. C. Shumway's No. 4 Shiner, in Section 38 of the Shumway Subdivision has been abandoned as dry with total depth of 1,962 feet. It topped the Pettus sand at 1,911 feet showing salt water. Plymouth and C. R. Rope is to drill another well on the A. C. Miles ranch, in the southwest part of the county, about 2 miles north of No. 1 well, abandoned last year. Magnolia Petroleum Co.'s No. 1 Kincaid, wildcat just north of the Nueces River in Survey No. 199, was drilling 3,450 feet. In the Jacob Pool, Loma Oil Co.'s No. 24 Jacob has been completed for 65 bbls. daily in sand at 1,040-57 feet.

Nueces County

In the Agua Dulce area in Nueces County, Camp and others' No. 2 King in Section 24 of the R. Garza Survey showed 3½ fourbles of salt water and oil with some gas on a drill stem test at 4,046 feet. It was last reported shut down. Garland Clymore's No. 2 Ollie Purl was drilling at 5,010 feet. It had sand with an odor of oil from 4,860-67 feet, and tested dry on a drill stem test. A test made from 4,893-4,900 feet showed 100 feet of salt water.

Bee County

In Bee County, Phillips Petroleum Co.'s No. 1 Morgan, on a 13,930-acre tract in the Eyles Survey, was drilling at 3,550 feet. It had sand from 2,722-33 feet and showed gas with sulphur water in the bottom.

Hidalgo County

The important test of Union Sulphur Co.'s No. 1 American Rio Grande Land & Irrigation Co., in Hidalgo County, was drilling at 2,325 feet. It is about one-half mile north of Mercedes. Later this will be one of the most watched wildcats in Southwest Texas. In the southwestern part of the county Otto Woods' No. 1 Alexandro Flores de Flores is building derrick. It is on Tract 250, Share 14, Porcion 41, Ancient Jurisdiction of Reynosa.

Bastrop County

In Bastrop County, Marts & Bevans' No. 1 Lucy George, in the George Glasscock Survey, topped Serpentine at 2,237 feet and late in the week was drilling ahead. Two completions were marked up for the North Dale Pool during the past week, one producer and one dry hole. Marts & Bevans' No. 4-A Riddle was completed for 75 bbls. daily with total depth of 2,302 feet, while Ogden & Reed's No. 3-A Riddle was abandoned as dry with total depth of 2,270 feet.

Medina County

Humble Oil & Refining Co.'s No. 1 J. D. Dodson, near the town of Yancey in southern Medina County, has been abandoned after showing mud and sulphur water in the Edwards lime. It topped the Edwards at 2,647 feet and bottomed hole at 2,672 feet.

Caldwell County

Adams & Lyles' No. 1 S. C. Cole, near McMahan in the eastern section of Caldwell County, was drilling at 2,220 feet.

DeWitt County

Humble Oil & Refining Co.'s No. 1 Kuester, wildcat test in DeWitt County, late in the week was drilling at 5,205 feet. It topped the Jackson at 4,003 feet and encountered top of the Hockley at 4,250 feet.

Frio County

In Frio County, Humble Oil & Refining Co.'s No. 2 Woodward, wildcat test in the Eliza Poor Survey, was drilling at 2,042 feet in shale.

Jim Hogg County

In the southern part of Jim Hogg County, A. W. Majors' No. 1 M. Guerra & Son was drilling at 2,556 feet. On a drill stem test from 2,272-79 feet it showed 78 joints of salt water in 10 minutes. Putnam & Bode's No. 1 McCarley, northern part of the county and about three-quarters of a mile southwest of Sandia, had set surface casing and late in the week was waiting on cement at 262 feet.

Guadalupe County

In Guadalupe County, J. E. Clark and others' No. 1 A. J. Harborth, in the John Jones Survey, has been abandoned as dry with total depth of 1,021 feet where it topped the Edwards and tested sulphur water. It topped the Buda at 888 feet and encountered top of Del Rio at 941 feet.

Live Oak County

Marine Oil Co.'s No. 1 J. B. Dunning, in the north end of the Lucas gas field in Live Oak County, has been completed for an estimated 50 bbls. of oil daily. Total depth is 5,269 feet. On a drill stem test from 5,226-62 feet it showed 300 pounds gas working pressure and 3 joints of mud cut with oil in 10 minutes.

Zapata County

In the Mirando Valley Pool of Zapata County, O. W. Killam's No. 2 Hinnant, in Survey No. 10, has been abandoned with total depth of 1,692 feet. Two drill stem tests were made in sands from 1,446-50 feet and 1,412-50 feet, both of which showed dry.

Southwest Texas Proven Areas

Week Ending April 7

CEDAR CREEK POOL—BASTROP COUNTY

C. H. Herbig et al's No. 1 H. R. Smith (Sallie Voss), A. Lytton Sur., 150 ft. from S line and 750 ft. from W line of 50-ac. tract or 5,000 ft. SW line and 750 ft. NW line of Sur. ..... Drlg. 1,689 ft.

Marts & Bevins' No. 3 Orgain, Addison Litton Sur. .... Location.

NORTH DALE POOL—BASTROP COUNTY

Chiquita Oil Co.'s No. 1 A. H. Hanna, 150 ft. from SW and SE lines of 180-ac. tract, Joshua Gray Sur. .... Serpentine 2,242-86 ft.; T.D. 2,442 ft.; running csg.

Marts & Bevins' No. 4-A C. L. Riddle, John Maxmillan Sur. ..... T.D. 2,302 ft., top chalk 2,190-93 ft., Serpentine 2,193-97 ft., chalk, odor oil, 2,197-2,211 ft.; comp. 75 bbls., pumping.

Ogden & Reed Oil Co.'s No. 1-A C. L. Riddle, John Maxmillan Sur. ..... T.D. 2,270 ft.; abd.

Watt L. Saunders' No. 1 Harris, 1,100 ft. from SW line, 2,330 ft. from NW line of John Maximillan Sur. No. 22 ..... Drlg. 1,625 ft.

ECKERT POOL—BEXAR COUNTY

Alamo Nat. Gas Co.'s No. 3 Coreth, 300 ft. SE of Humble's No. 2 Coreth in A. Stafford Sur. ..... T.D. 1,055 ft.; set 6⅝-in. csg.; S.D.

J. F. Harrison's No. 4 F. Gembler, 150 ft. from NW line, 450 ft. from NE line of 88-ac. tract in J. Montes Sur. ..... T.D. 831 ft.; S.D.

S. J. Moore's No. 5 T. W. Masterson, 150 ft. from S line, 175 ft. from W line of 41-ac. tract in Miguel Gortaris Sur. ..... T.D. 736 ft.; 6⅝-in. csg.; S.D.

S. J. Moore's No. 4 T. W. Masterson, 150 ft. from S and W lines of tract in M. Cartari Sur. ..... T.D. 330 ft.; S.D.

VON ORMY POOL—BEXAR COUNTY

Von Ormy Oil Co.'s No. 2 E. B. Carruth, 515 ft. from W line, 1,970 ft. from S line of 160-ac. tract out of 657-ac. tract in F. Rolen Sur. ..... Drlg. 250 ft.

SLICK POOL—DEWITT COUNTY

Slick-Seeligson Corp.'s No. 3 Poetter, 2,840 ft. from SW line and 1,320 ft. from SE line of lease on 591-ac. tract in Marshall County ..... Coring 4,000 ft.

EAGLE HILL POOL—DUVAL COUNTY

Al Buchanan's No. 5 Duval County Ranch Co., 990 ft. from E line, 330 ft. from S line of N½ of Sur. No. 206 ..... T.D. 101 ft.; S.D.

Al Buchanan's No. 6 Duval County Ranch, 660 ft. E of No. 1, Sec. 206 ..... Drlg. 1,477-79 ft.; est. 150 bbls. day.

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Andrews County Wildcat Blows Tools Up Hole; Ordovician Test Planned for Crockett County

By L. E. BREDBERG
Fort Worth Bureau, The Oil and Gas Journal

FORT WORTH, Tex., Apr. 9.—Striking an estimated 1,500,000 feet of gas in Humble Oil & Refining Co.'s No. 1 Means, a wildcat in Andrews County, and announcement of two important wildcats, one an Ordovician test in Crockett County, were the important developments in West Texas.

Humble Oil & Refining Co.'s No. 1 Means, Section 2, Block A-35, P.S.L. Survey, picked up 1,500,000 feet of gas at 2,572 feet which blew the tools up the hole, resulting in a fishing job. The test is about 10 miles northeast of the producers in the Ogden Pool in Andrews County, which are producing from pay topped at around 4,345 feet. It picked up the gas pay in sand and anhydrite. The Ogden Pool is producing from a sandy lime. A second test is on the Kuykendall land about 2 miles southeast of the Ogden producers in Section 24, Block A-46, P.S.L. Survey. It is drilling below 1,550 feet.

Landreth Production Co. has made a wildcat location on the Clarence Scharbauer land in Section 20, Block 44, Township 1n, T.&P. Survey, about 7 miles west of the North Cowden area in Ector County. Contract depth is 4,500 feet, but the operators will carry a 10-inch hole to top of the Permian lime and may drill to the Ordovician lime. It is being drilled on a showing of oil in the Penn-Devonian's No. 1 W. F. Cowden, in Section 27, about 2 miles southeast which encountered a showing of oil from 4,120-4,309 feet when drilled in 1930 and abandoned at 4,398 feet. The location is also based on the theory that a structural high running northwest and southeast exists with the structure passing just west of the dry hole.

The acreage involved consists of 19 sections, with Landreth Production Co. holding one-fourth to a full interest in each section. Sections involved are: American-Maracaibo Sections 6, 7, 8, 11 and 12, Block A, Public School Lands, and Sections 19, 20 and 21, Block 44, Township 1n, T.&P. Survey. Penn Oil Co. and Devonian Oil Co., Sections 26, 27, 28, 30 and 34, Block 44, Township 1n, T.&P. Survey; Texas Pacific Coal & Oil Co., Sections 22 and 31, Block 44, Township 1n, T.&P. Survey; Broderick and Calvert Sections 6, 7, 16 and 18, Block 44, Township 1n, T.&P. Survey.

Crockett County

Location has not yet been made for Humble Oil & Refining Co.'s Ordovician test in the western part of Crockett County on the Howard B. Cox ranch. It is to be spudded within 90 days. It will be about 10 miles southwest of Stanolind Oil & Gas Co.'s No. 1 J. S. Todd, the first test outside of the Big Lake Field to reach the Ordovician. The company holds several thousand acres centering around the Fort Lancaster district, northeast of Sheffield on the Pecos River. This will be the second such test to be drilled by the company in this district. Its No. 1 White and Baker in Pecos County is drilling below 8,715 feet showing no change in formation. It is in Section 44, T.C.R.R. Survey, Block Z.

Howard-Glasscock

In the Howard-Glasscock County Field, H. O. Wooten's No. 1 Sam Turner topped the pay at 2,180 feet and was completed for 1,752 bbls. per day on a production test. The completion extends production in the upper pay about 1 mile west, although it is a southeast diagonal offset to a small pumper completed by Glasscock Brothers on the W. P. Edwards lease in 1930. Three more locations were made during the week and the prospects of closing about a mile gap between the Edwards producer and the main body are bright. Noble Drilling Co. has made location for No. 1 Edwards in Section 17, Block 33, Township 2s, T.&P. Survey. Simms Oil Co.'s No. 1 W. P. Edwards is in Section 18, Block 33, Township 2s, T.&P. Survey and its No. 2 W. P. Edwards is in the same section.

Upton County

In Upton County in the Sherk and Lane areas, quite a drilling program is on. Three locations were made. Theabotal Oil Co. has made location for No. 2 J. F. Lane in Section 36, Block 1, M.K.&T. Survey. Texas Pacific Coal & Oil Co.'s No. 2-D Lane was completed for an initial production of 104 bbls. per day, and the company has made location for No. 3-B Lane in Section 1, Block 3, M.K.&T. Survey. Texas Pacific Coal & Oil Co. and Humble Oil & Refining Co.'s No. 13 Shirk is in Section 1, Block 3, M.K.&T. Survey. Further drilling in these two areas will determine whether the mile gap which separates the two areas will be bridged.

Fisher County

In Fisher County, H. H. Porter has assembled a block of acreage and will spud a test by June 1. The block consists of the S half Section 51, S half Section 52, Sections 49 and 46, N half and SW Section 50, H.&T.C. Survey.

Texas Inland Oil Co.'s No. 1 First National Bank of Hamlin was treated with acid during the week, but has not been tested. Before treating with acid it was estimated good for 75 to 100 bbls. daily. It is in Section 191, Block 1, B. B.B.&C. Survey, and a quarter mile extension to the Royston Pool in Fisher County.

O. M. Campbell, of Abilene, has taken a 3,000-acre block centering around Section 18, Block 21, T.&P. Survey, and will drill a 3,500-foot test in the NW Section 18. In the same county, C. P. Campbell's No. 3 Herndon which struck oil four weeks ago and had the appearance of opening up another pool has been shut down after failing to swab. It is in Section 3, Block 6, M.E.P.&P. Survey.

In Crockett County, Texas Co. has leased 10,345 acres in Block 1, I.&G.N. Survey, Block NN, and Block NM.

Atlantic Oil Producing Co. and Humble Oil & Refining Co. have torsion balance crews working in Andrews County and on the Martin-Howard County line, respectively.

Ward County

West Texas Oil Corp. has made location for an interesting wildcat in Section 2, J. V. Borders Survey, Ward County. Four other tests were started in the county, all in proven territory. C. C. Duffey and others' are moving in for No. 1 Llano-Sloan, in Section 24, H.&T.C. Survey. Gulf Production Co.'s No. 46 O'Brien was located in Section 17, Block F, G.M.M.B.&A. Survey. California Co. has rig up for No. 2 Durgin in Section 15, Block 34, H.&T.C. Survey.

The State Senate Investigating Committee which has begun an investigation of gas waste in the Panhandle, will also look into gas waste in the Big Lake Field, Reagan County. D. E. H. Sellards, director of the Bureau of Economic Geology of the University of Texas, has prepared a series of questions for witnesses.

Crane County

In Crane County, Duffey and others' No. 1 G. L. Brown, a wildcat in Section 34, Block 43, Township 4s, T.&P. Survey, encountered salt water at 4,330 feet. It may be abandoned at that depth.

Honolulu Oil Co. and others' No. 1 Rumsey and others, in Ector County, 2½ miles west and a half mile south of Broderick & Calvert's No. 1 Cowden discovery well, topped the salt at 1,460 feet and is reported to be checking 236 feet higher on this formation than the discovery well. It is drilling below 1,600 feet in salt. It is in Section 33, Block 44, Township 2s, T.&P. Survey.

Locations for 16 new wells were announced, compared to 5 the previous week. The new work was in Jones, Upton, Fisher, Glasscock, Ward, and Runnels Counties.

Gulf Production Co.'s No. 103 McElroy an Ordovician test in Section 19, C. C.&R.G.N.G. Survey, Block F, Upton County, is drilling below 9,702 feet.

WICHITA FALLS DISTRICT

One of the best wells yet completed in the Falls County School Land Pool in southwest Archer County is Cullum and Alexander's No. 10 Falls-Gulf Production Co. well, 522 feet from the south and 200 feet from the west line of Block 14, Falls County School Lands. Lime was logged from 1,097-1,118 feet, total depth. It was treated with 1,000 gallons of acid and is estimated good for 2,000 bbls. The allowable is 82 bbls. per day.

Four miles southeast of Anarene and 1½ miles northeast of the Benson Pool, Pois and Schultz have an extension well in the making on the Archer County fee lands in the F. A. Whitaker Survey. It logged saturated lime from 919-28 feet and showed 75 feet of oil natural before treating with 1,000 gallons of acid. After treating, it swabbed around 200 bbls. per day and is now being cleaned out.

In the new pool, 4 miles southeast of Mankins, in northwest Archer County, Staniforth and Ray's No. 2 Wilson in the S.P.R.R. Survey A-1,203 logged saturated lime at 1,609-10 feet and is swabbing 10 bbls. per hour. This is the second well in this pool, but other tests are drilling and more proposed.

In eastern Montague County, 5 miles south of Illinois Bend, Continental Oil Co. and Schermerhorn's No. 1 Dodgin in the F. Secrest Survey has a new oil sand logged at 1,809-14 feet. Tools were lost in the hole and a fishing job resulted.

Seitz and Dillard's No. 1 S. J. Hott, southeast corner of the north half of the Ed O'Connor Survey, had an oil sand from 1,611-18 feet and swabbed 200 bbls. of oil per day. It is 5,000 feet north of a well producing from the same pay and 3,600 feet south of production and opens another large area on the east line of Montague County, extending production from the Bulcher Pool in northwest Cooke County.

Young County

Hinson & Tidwell of Graham have assembled a block composed of T.E.&L. Surveys Nos. 2,704 and 2,705, the north 100 acres of 1,988 and all of 1,989 and

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Wildcat Operations in West Texas

Week Ending April 9

ANDREWS COUNTY

Company, well, farm name, section and block—	Remarks:
Fuhrman Pet. Co.'s No. 1-B Bonner, 1,320 ft. from N line and 1,320 ft. from E line of Sec. 25, Blk. A-43, P.S.L. Sur.	Drlg. 3,695 ft.
Humble Oil & Ref. Co.'s No. 1 R. M. Means, 660 ft. from N and 660 ft. from E of Sec. 2, Blk. 2-35, P.S.L. Sur.	Drlg. 2,146 ft.
Humble Oil & Ref. Co.'s No. 1 Kuykendall, 1,320 ft. from S and E lines of Sec. 24, Blk. A-46, P.S.L. Sur.	Drlg. 1,550 ft.
Landreth Prod. Co.'s No. 1 Clarence Scharbauer, 660 ft. from S and E lines of Sec. 20, Blk. 44, Twp. 1n., T.&P. Sur.	Location.
Llano Oil Co.'s No. 1 J. E. Parker, 330 ft. from N line, 990 ft. from E line of Sec. 18, Blk. A-44, P.S.L. Sur.	Location.

BORDEN COUNTY

Continental Oil Co.'s No. 1 Johnson, 660 ft. from S line and 660 ft. from E line of Sec. 34, Blk. 32, Twp. 4n, T.&P. Sur.	Location.

BREWSTER COUNTY

C. P. Link and Joiner's No. 1 McIntire, 853 ft. from S, 3,390 ft. from E of Sec. 31, Blk. 353, W. M. Mitchell Sur.	S.D. 1,450 ft.

COKE COUNTY

Wm. Hooper's No. 1 Gaston, 240 ft. from S line and 654 ft. from W line of Joseph Sur. No. 11	S.D. 1,365 ft.

CRANE COUNTY

Gulf Prod. Co.'s No. 1 Edwards, 330 ft. from S line and 330 ft. from E line of Sec. 21, Blk. B-18, Public School Land Sur.	Drlg. 4,512 ft.
Storey, Frievele & Duffy's No. 1 G. L. Brown et al, 330 ft. from N and E line of Sec. 34, Blk. 43, Twp. 4s, T.&P. Sur.	Drlg. 4,190 ft.
Wahlenmaier Petroleum Corp.'s No. 1 W. P. Edwards, 330 ft. from N and 330 ft. from E of SW cor. of the NE of Sec. 12, Blk. B-23, P.S.L. Sur.	Drlg. 880 ft.

CROCKETT COUNTY

Porter Rankin's No. 1 Todd, 1,500 ft. from N line and 3,020 ft. from E line of Sec. 48, Blk. UV, G.C.&S.F. Sur.	Drlg. 1,320 ft.
J. D. Young's No. 1 Shannon, 330 ft. from W line, 330 ft. from N line of Sec. 35, Blk. 1, G.C.&S.F. Sur.	S.D. 2,635 ft.

CULBERSON COUNTY

Miller Bros.' No. 1 fee, 1,980 ft. from N and 660 ft. from E line of Sec. 21, Blk. 97, P.S.L. Sur.	S.D. 1,065 ft.

DAWSON COUNTY

Ray Albaugh et al's No. 1 John Robinson, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 46, Blk. M, E.L.R.R. Sur.	Cleaning out 1,750 ft.

ECTOR COUNTY

Atlantic Oil & Prod. Co.'s No. 2 Holt, 660 ft. from N line and 1,980 ft. from E line of Sec. 15, Blk. A, P.S.L. Sur.	Location.
C. J. Davidson et al's No. 1 Cole, 660 ft. from N line and 660 ft. from W line of Sec. 10, Blk. 45, Twp. 1n, T.&P. Sur.	S.D. 727 ft.

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Three More Oil Producers Expected in Cayuga; No Let Up in Drilling in East Texas Field

By L. E. BREDBERG

DALLAS, Tex., Apr. 9.—The Cayuga Pool of northwest Anderson County now appears certain of soon seeing the completion of three more oil producers, the greatest extension being No. 1 Wills in the S. Edmondson Survey, approximately 1 mile northeast. The next longest extension will be No. 1 Rampy, approximately three-quarters of a mile southeast. No. 1 Wortham is about one-quarter mile northeast. No. 1 Wills topped the oil sand about 18 feet higher than the discovery well and No. 1 Rampy has been running still higher structurally, making the acreage east of the discovery look more promising than to the west.

No. 1 Wills is now drilling plug after recovering around 26 feet of oil saturated sand and drilling to 4,086 feet before cementing 7-inch pipe at 4,070 feet to cut off a large portion of sand and eliminate a large volume of gas, as was done in the discovery well which is producing around 500 bbls. per day through chokes. Total depth of that well is 4,088 feet.

No. 1 Rampy topped the Austin at 3,151 feet and logged the base at 3,499 feet with an elevation of 292 feet. It cored from 3,950-60 feet recovering 18 feet of gas sand with a slight odor of oil. Another core from 3,968-86 feet gave a recovery of only 2 inches of the same sand. It is due to be the third producer in the field. It is in the James Wilson Survey.

No. 1 Wortham, in the same survey as the Rampy test, topped the Austin chalk at 3,175 feet. It formerly topped the Pecan Gap chalk at 2,198 feet and logged the base at 2,324 feet. Elevation is 317 feet. In coring from 3,880-90 feet, 6 feet of formation was recovered, of which 1 foot was quartzitic sand, and 1½ feet was very soft loose sand with an odor of oil. The balance of the recovery was brown lignitic shale. Top of the Woodbine was called at 3,800 feet. This test is now coring ahead and should also be completed within the next week.

Henderson County

Rector and Webb and others' No. 1 C. A. Riddlesberger in the W. F. Mitcham Survey, approximately 6 miles northeast of the Cayuga area, but in Henderson County, is drilling below 3,525 feet with no information being given out. It formerly shut down at 3,460 feet, reported to be in lower Taylor with no Pecan Gap Chalk yet logged at that depth. If this report is true the test is apparently running considerably low, and if so checks the extension of the Cayuga Pool in that direction.

Long Lake Area

No more locations have yet been staked in the Long Lake area, southwest Anderson County, in which the Tide Water Oil Co. and Texas Seaboard Oil Co. hold a 24,000-acre block surrounding the five wells, three producing only gas.

Byrd & Frost and others' No. 1 Alice Scott, in the Joseph Crawford Survey, southern Anderson County, is drilling in chalk at 4,868 feet. It topped the Pecan Gap chalk last week at 4,725 feet with base at 4,850 feet.

McGlothlin and others' No. 1 Saylors, in the Anderson Webb Survey, 3 miles northeast of Murchison in Henderson County, is drilling at 2,725 feet in Pecan Gap chalk after topping broken Pecan at 2,675 feet and hard Pecan at 2,675 feet.

Magnolia Petroleum Co. has taken 7,500 acres in a block 8 miles south of Athens from the Koon Kreek Klub and may drill a wildcat Woodbine sand test in the near future. This block is also in Henderson County.

Dick Schwab and others are drilling a wildcat in Nacogdoches County, on the Z. Rambain farm in the J. Simpson Survey.

Daniels Oil & Royalty Co.'s No. 1 P. D. C. Ball, in the J. I. Auguilera Survey, south of Turlington in Freestone County, logged the base of the Pecan Gap chalk at 3,224 feet and is shut down at 4,192 feet in chalk topped at 3,029 feet. Elevation is 427 feet.

A location for a Trinity sand test is to be made in Limestone County by V. V. Waite and others of Dallas, who have assembled a block of 8,000 acres, 4 miles north of Thornton and centering in the Barron farm. Location is in the east corner of a 160-acre tract of Barron's in the W. G. McKenzie Survey, north of a dry hole drilled last year to 4,365 feet in the E. Mabry Survey.

Alex M. Snyder, of Longview, has assembled a block of 3,500 acres in southeast Wood County, near Hawkins and will drill a Woodbine test.

Leon County

Shell Petroleum Corp. and others' No. 1 Lee, in the William Cooper Survey, Leon County, is coring below 5,800 feet after testing sands above and showing only for a gas well. A test at 5,750.5 feet failed to show anything but mud in 10 minutes. This test is 4 miles northeast of Shell's two gas wells, which as yet, have no connections.

Humble Oil & Refining Co.'s test about 7 miles west of Gregg County production, on the Tucker farm in the J. Bell Abstract 160 Survey, 3 miles southwest of Friendship in Smith County, topped the Pecan Gap chalk at 2,703 feet, logged the base at 3,154 feet, topped the Austin chalk at 3,717 feet and is drilling at 3,750 feet in chalk. Elevation is 331 feet. This is the only wildcat this company is drilling in the district.

Simms Oil Co. has taken a 2,200-acre block near Freestone, Freestone County.

H. L. Hunt, of the Hunt Production Co., has assembled a block of 6,000 acres south of Tyler in Smith County and is to drill in the near future. This will be several miles west of a dry hole drilled over a year ago, and is considered out in the basin.

EAST TEXAS

There were 68 locations staked in East Texas and 78 more wells were placed on production. There are no signs of operators letting up on drilling until the acreage per well average is brought down below the present average. When the field is ultimately drilled this average will probably be in the neighborhood of one well to each 8 or 9 acres.

COMPLETIONS IN EAST TEXAS

North Gregg County

Amada Oil Co.'s No. 3 Green, top sand 3,608 feet, initial production 95 bbls. per hour through open tubing, total depth 3,628 feet. Arkansas Fuel Oil Co.'s No. 2-A Bolten, top sand 3,510 feet, initial production 22 bbls. in one-half hour through open tubing, total depth 3,535 feet; No. 2 J. D. Davis, top sand 3,589 feet, initial production 30 bbls. in one-half hour through open tubing, total depth 3,605 feet; No. 4 Annie Lee top sand 3,602 feet, initial production 53 bbls. in one-half hour through open tubing, total depth 3,621 feet; No. 2-D McKinley, top sand 3,557 feet, initial production 43 bbls. in one-half hour through open tubing, total depth 3,578 feet. Empire Gas & Fuel Oil Co.'s No. 10 M. Bumpass, top sand 3,509 feet, initial production 25 bbls. in one-quarter hour through open tubing, total depth 3,565 feet. Fain & McGaha's No. 10 A. Tooke, top sand 3,580 feet, initial production 32 bbls. in one-quarter hour through open tubing, total depth 3,640 feet. Mary L. George's No. 1 Crosby top sand 3,664 feet, initial production 82 bbls. per hour through open tubing, total depth 3,680 feet. Lacy Petroleum Co.'s No. 4 Christian, top sand 3,605 feet, initial production 100 bbls. per hour through open tubing, total depth 3,629 feet.

Magnolia Petroleum Co.'s No. 6 D. L. Goolsby, top sand 3,512 feet, initial production 129 bbls. per hour through open tubing, total depth 3,535 feet; No. 3 Laura Walker, top sand 3,610 feet, initial production 100 bbls. per hour through open tubing, total depth 3642 feet. J. H. Massie and Prince Brothers' No. 8 J. W. Orr, top sand 3,651 feet, initial production 100 bbls. per hour through open tubing, total depth 3,669 feet. Omega Oil Co.'s No. 3 Nicholson, top sand 3,630 feet, initial production 70 bbls. per hour through open tubing, total depth 3,645 feet. Dalport Oil Co.'s No. 1 Sam Burton, top sand 3,617 feet, initial production 90 bbls. in four hours pumping and flowing, total depth 3,662 feet. Sabinas Oil Corp.'s No. 5-A G. W. Falvey, top sand 3,706 feet, initial production 95 bbls. per hour through open tubing, total depth 3,729 feet. Shell Petroleum Corp.'s No. 26 J. Moore top sand 3,520 feet, initial production 35 bbls. in one-quarter hour through open tubing, total depth 3,567 feet. Sklar Oil Co.'s No. 4 J. H. Alexander, top sand 3,564 feet, initial production 20 bbls. in one-half hour through open tubing, total depth 3,585 feet. Stanolind Oil & Gas Co.'s No. 6 J. B. Doby, top sand 3,466 feet, initial production 21 bbls. in one-quarter hour through 2-inch tubing and 1-inch tubing choke, total depth 3,504 feet.

Sun Oil Co.'s No. 11 J. N. Campbell, top sand 3,478 feet, initial production 85 bbls. per hour through open tubing, total depth 3,553 feet. Tide Water Oil Co.'s No. 25 Lake Devernia top sand 3,501 feet, initial production 22 bbls. in 10 minutes through open tubing, total depth 3,567 feet; No. 26 Lake Devernia, top sand 3,498 feet, initial production 10 bbls. in 10 minutes through open tubing, total depth 3,567 feet. Yount Lee Oil Co.'s No. 9-C Smith, top sand 3,548 feet, initial production 59 bbls. per hour through eleven-sixteenths inch tubing choke on 2½-inch tubing, total depth 3,568 feet.

South Gregg County

A. B. C. D. Oil Co.'s No. 4 H. C. McNeeley, top sand 3,648 feet, initial production 300 bbls. in two hours through open tubing total depth 3,675 feet. Arkansas Fuel Oil Co.'s No. 11 M. B. Hughey, top sand 3,541 feet, initial production 48 bbls. in one-half hour through open tubing, total depth 3,578 feet. Atlantic Oil Producing Co.'s No. 9-C M. B. Hughey, top sand 3,523 feet, initial production 36 bbls. in one-half hour through open tubing, total depth 3,549 feet; No. 10-C M. B. Hughey, top sand 3,550 feet, initial production 46 bbls. in one-half hour through open tubing, total depth 3,583 feet. Byrd-Frost, Inc.'s No. 2-A J. B. Watson, top sand 3,585 feet, initial production 125 bbls. per hour through open tubing, total depth 3,617 feet. Empire Gas & Fuel Oil Co.'s No. 7 Lockhart, top sand 3,533 feet, initial production 24 bbls. in one-quarter hour through open tubing, total depth 3,604 feet; No. 5 B. L. Taylor, top sand 3,698 feet, initial production 24 bbls. in one-quarter hour through open tubing, total depth 3,708 feet. Gulf Production Co.'s No. 4 J. S. Elder, top sand 3,514

Administrator's Report on Crude Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended March 31 totaled 341,363,000 bbls., an increase of 1,282,000 bbls. over the total of 340,081,000 bbls. on hand at the end of the preceding week, Harold L. Ickes, Secretary of the Interior and administrotor of the code of fair competition for the petroleum industry, announced today. This increase, which follows a gain in stocks of 1,094,000 bbls. during the previous week, comprised an increase in stocks of domestic crude oil amounting to 1,184,000 bbls. and an increase in stocks of foreign crude of 98,000 bbls.

Current reports of the industry indicate decreases in crude production, crude runs to stills, and an increase in imports of crude oil during the week ended March 31. The approximate daily average balance of crude oil during the week ended March 31 was as follows (in barrels): Production, 2,410,000; imports, 101,000, equals runs to stills, 2,250,000; increase in stocks, 183,000; exports, fuel, losses, etc., 78,000.

CRUDE PETROLEUM STOCKS REPORTED BY COMPANIES HOLDING 100,000 BBLS. OR MORE

Grade of crude oil—	Stocks held by reporting companies Mar. 24, 1934 (bbls.)	Mar. 31, 1934 (bbls.)	Change from Mar. 24, 1934 (bbls.)
Pennsylvania Grade	4,966,000	4,911,000	—55,000
Other Appalachian, including Kentucky	1,349,000	1,353,000	+4,000
Lima, Northeast Indiana, Michigan	1,607,000	1,595,000	—12,000
Illinois and Southwest Indiana	11,292,000	11,239,000	—53,000
North Louisiana and Arkansas	11,368,000	11,276,000	—92,000
West Texas and Southeast New Mexico	30,422,000	29,846,000	—576,000
East Texas	43,663,000	44,180,000	+517,000
Other Mid-Continent	154,967,000	155,899,000	+932,000
Gulf Coast	15,517,000	15,504,000	—13,000
Rocky Mountain	27,584,000	27,619,000	+35,000
California	33,894,000	34,391,000	+497,000
Total domestic crude	336,629,000	337,813,000	+1,184,000
Foreign crude	3,452,000	3,550,000	+98,000
Total crude	340,081,000	341,363,000	+1,282,000

feet, initial production 95 bbls. in one-half hour through open tubing, total depth 3,539 feet; No. 27-A Spear, top sand 3,546 feet, initial production 32 bbls. in one-half hour through open tubing, total depth 3,571 feet. Clyde H. Hall receiver's No. 1 North Chapel, top sand 3,730 feet, initial production 100 bbls. per hour through open tubing, total depth 3,742 feet.

T. D. Humphreys' No. 9 A. Spear, top sand 3,565 feet, initial production 30 bbls. in one-quarter hour through open tubing, total depth 3,586 feet. Hunter and Rowe's No. 2 C. L. Stell, top sand 3,506 feet, initial production 40 bbls. in two hours through 2-inch tubing flowing by heads, total depth 3,556 feet. Idaho Oil Corp.'s No. 1 Dickson, top sand 3,535 feet, initial production 13 bbls. in one-quarter hour through open tubing, total depth 3,578 feet. Rogers-Lacy's No. 4 Reynolds, top sand 3,540 feet, initial production 24 bbls. in one-quarter hour through open tubing, total depth 3,570 feet. Midway Petroleum Co.'s No. 5 J. E. Lawther, top sand 3,542 feet, initial production 27 bbls. in one-half hour through open tubing, total depth 3,590 feet. Sells Petroleum Co.'s No. 5 E. Sibley, top sand 3,560 feet, initial production 20 bbls. in 20 minutes through open tubing, total depth 3,665 feet. Shell Petroleum Corp.'s No. 10 P. M. Bates, top sand 3,520 feet, initial production 60 bbls. in one-half hour through open tubing, total depth 3,580 feet; No. 6-B M. H. Bivens, top sand 3,656 feet, initial production 23 bbls. in one-quarter hour through open tubing, total depth 3,663 feet. Texas Co.'s No. 18 H. T. Elder, top sand 3,660 feet, initial production 600 bbls. per hour through open tubing, total depth 3,687 feet.

North Rusk County

Abercrombie and Harrison's No. 11 J. Cantrell, top sand 3,642 feet, initial production 70 bbls. in one-half hour through open tubing, total depth 3,675 feet. Atlantic Oil Producing Co.'s No. 15 Brightwell, top sand 3,680 feet, initial production 60 bbls. in one-half hour through open tubing, total depth 3,711 feet. Barnsdall Oil Co.'s No. 6 T. H. Gill, top sand 3,612 feet, initial production 60 bbls. in one-half hour through open tubing, total depth 3,616 feet. Cordova Union Oil Co.'s No. 2 C. O. Christian, top sand 3,627 feet, initial production 20 bbls. in 20 minutes through open tubing, total depth 3,669 feet. Empire Gas & Fuel Oil Co.'s No. 11 C. O. Christian, top sand 3,737 feet, initial production 26 bbls. in one-quarter hour through open tubing, total depth 3,770 feet. Humble Oil & Refining Co.'s No. 8 W. P. Peterson, top sand 3,563 feet, initial production 75 bbls. per hour through open tubing, total depth 3,655 feet. Lewis Production Co.'s No. 7 Tom Bean, top sand 3,596 feet, initial production 25 bbls. in one-quarter hour through open tubing, total depth 3,645 feet. W. E. McKinney's No. 2 J. C. Bradbury, top sand 3,684 feet, initial production 100 bbls. per hour through 2½-inch tubing choke, total depth 3,693 feet.

South Rusk County

Chaplin and Bass' No. 2 E. L. Pinkston, top sand 3,624 feet, initial production 20 bbls. in one-quarter hour through open tubing, total depth 3,650 feet. G. R. Reed's No. 1 W. H. Frederick, top sand 3,574 feet, initial production 10 bbls. per hour pumping, total depth 3,660 feet. Dearing & Son's No. 2 D. C. Joiner, top sand 3,708 feet, initial production 25 bbls. in 40 minutes through open tubing, total depth 3,713 feet. Gulf Production Co.'s No. 5 W. P. Keeling, top sand 3,686 feet, initial production 65 bbls. per hour through three-quarters inch tubing choke, total depth 3,730 feet. Humble Oil & Refining Co.'s No. 37 W. L. Price, top sand 3,704 feet, initial production 98 bbls. per hour through open tubing, total depth 3,766 feet; No. 7 M. Wooster, top sand 3,724 feet, initial production 60 bbls. per hour through open tubing, total depth 3,794 feet. Hunt Production Co.'s No. 14-A H. C. Maxwell, top sand 3,800 feet, initial production 43 bbls. in 11 minutes through open tubing, total depth 3,836 feet. Bond Oil Corp.'s No. 1 G. W. Eaton, top sand 3,742 feet, initial production 90 bbls. per hour through open tubing, total depth 3,753 feet.

Mid-Kansas Oil & Gas Co.'s No. 69 W. T. Grissom, top sand 3,650 feet, initial production 98 bbls. per hour through open tubing, total depth 3,660 feet. R. S. Monroe's No. 1 Bradford, top sand 3,524 feet, temporarily abandoned, failed to flow, total depth 3,609 feet. Octo Oil Co.'s No. 1 W. H. Frederick, top sand 3,560 feet, initial production 90 bbls. in three hours' flowing, total depth 3,634 feet. Pansy Oil Co.'s No. 3 W. H. Frederick, top sand 3,530 feet, initial production 20 bbls. per hour through open tubing, total depth 3,625 feet. Sinclair Prairie Oil Co.'s No. 49 W. D. Kinney, top sand 3,644 feet, initial production 26 bbls. in one-quarter hour through open tubing, total depth 3,658 feet. Wainwright-West Oil Co.'s No. 3 W. M. Camps, top sand 3,620 feet, initial production 40 bbls. per hour swabbing, total depth 3,637 feet.

Smith County

W. E. Farley and others' No. 1 Gant estate, top sand 3,769 feet, top salt water sand 3,771 feet, plugged and abandoned, total depth 3,786 feet (James Jordan Survey). Magnolia Petroleum Co.'s No. 18 J. R. Wright, top sand 3,673 feet, initial production 100 bbls. per hour through open tubing, total depth 3,680 feet. Manahan Oil Co.'s No. 3 S. S. Cook, top sand 3,748 feet, initial production 30 bbls. in one-quarter hour through open tubing, total depth 3,751 feet. Strickland & Mullins' No. 1 F. Cole, top sand 3,793 feet, initial production 8 bbls. in five minutes through tubing, total depth 3,796 feet.

Upshur County

E. & D. Oil Co.'s No. 7 Wells, top sand 3,700 feet, initial production 85 bbls. per hour through open tubing, total depth 3,711 feet. D. C. Fisher and Dye's No. 1 Starr, top sand 3,581 feet, initial production 20 bbls. per hour through open tubing, total depth 3,589 feet. General Crude Oil Co.'s No. 7 R. Williams, top sand 3,641 feet, initial production 18 bbls. in one-quarter hour through open tubing, total depth 3,645 feet. Gibson Oil Co.'s No. 4 W. E. Smith, top sand 3,701 feet, initial production 65 bbls. per hour through open tubing, total depth 3,729 feet. J. E. Mabee's No. 2 C. C. Landers, top sand 3,726 feet, initial production 100 bbls. in 40 minutes through open tubing, total depth 3,741 feet. Watley & Stillers' No. 1 Charles Cobb, dry and abandoned, total depth 3,725 feet, M. Mann Survey.

WILDCAT COMPLETIONS

Anderson County

Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 5 Long Lake (Monig), top Pecan Gap 2,555 feet, base 3,671 feet, top Austin chalk 4,643 feet, base 4,864 feet, top Woodbine sand 5,137 feet, initial production estimated at 75,000,000 feet of gas, total depth 5,280 feet, plugged back to 5,258 feet.

West Texas Fields

(Continued from Page 73)

all of 2,713 with some offset acreage. A 4,000-foot test is to be spudded in 60 days. This is in Young County.

Barnsdall Oil Co. has taken 4,000 acres for a deep lime test in the northwest part of Young County, the block being composed of some 15 sections in the T.E.&L. Survey. Five miles north of the James Pool in northeast Young County Associated Development Co.'s No. 1 Sparks, Section 286, T.E.&L. Survey, logged the sand at 2,957-67 feet and is drilling at 3,150 feet. This test looks like an extension or another pool.

One mile south of the James Pool, Pitzer and West's No. 1 Haggard, in Section 470, T.E.&L. Survey, topped the lime at 3,908 feet and is drilling at 4,000 feet with no oil or water. It appears a defining test on the south.

The old Panhandle Refining Co.'s No. 7 McClusky, which has produced a large amount of oil and which has been producing only 2 bbls. per day before treated with acid, did not respond. It is producing from the Ellenburger lime, a deeper formation than other lime wells are producing from. Higher limes have responded well to acid treatment and this is one of the first failures.

Lorenzen and others' No. 1 Clark, 1 mile west of Putnam in northeast Callahan County, showed for an 8 or 10-bbl. well from the Caddo lime logged at 3,341-43 feet, but failed to respond to acid. Total depth is 3,350 feet. This is a wildcat that promised a new pool.

Two miles northeast of Muenster in the north half of Cooke County, E. J. Rumwalt's No. 1 True, in the W. D. Survey, which had 250 feet of oil in the hole from lime logged at 1,080-88 feet, was treated with 1,000 gallons of acid and is flowing about 25 bbls. per day by heads.

Locations and Runs

Locations are averaging more than 50 each week. Pipe line runs from the district averaged 60,955 bbls. per day during the week. Daily average production has been running above the daily allowable and the Railroad Commission has issued orders curtailing production by 20 per cent. The daily allowable is 56,500 bbls. per day, but daily averages have exceeded it by about 4,000 bbls. per day. Marginal wells will not be included.

PANHANDLE DISTRICT

R. Watchorn and others' No. 1 D. E. Johnson, Section 47, Block 24, H.&G.N. Survey, a mile west of nearest production in western Wheeler County, made an average flow of 795 bbls. per day during the first five days on production after topping the dolomite pay at 2,430 feet and shutting down at 2,449 feet to test.

There were 12 locations reported and 5 completions. Gray County has 8 of the 12 new locations, 3 of the other 4 being in Wheeler County.

There are 1,873 producing wells in the Panhandle, a decrease from past months, but several wells have been abandoned as it became impossible to produce them or they were depleted of oil. Of the present producers 917 are marginal wells with a daily allowable of 20 bbls. The others are prorated 17.59 per cent of their potential above the marginal quota. Daily average production during the week was 54,160 bbls., decrease of 2,270 bbls. per day under the past week.

COMPLETIONS IN WEST TEXAS

Ector County

Continental Oil Co.'s No. 1 O. B. Holt, shot 180 quarts 4,250-94 feet, initial production 370 bbls. per day flowing, total depth 4,294 feet. Stanolind Oil & Gas Co.'s No. 4 J. M. Cowden, top pay 4,045 feet, shot 300 quarts from 4,153-4,268 feet, flowed 555 bbls. in 15 hours, total depth 4,321 feet.

Glasscock County

Empire Gas & Fuel Oil Co.'s No. 2 Hall, top pay 2,085 feet, increase 2,104 feet, initial production 1,140 bbls. per day on proration gauge, total depth 2,123 feet. H. O. Wooten's No. 1 Sam Turner, top pay 2,180 feet, initial production 1,752 bbls. per day on proration test, total depth 2,180 feet.

Sterling County

Gullick and Johnson's No. 1 J. T. Davis, dry and abandoned, total depth 1,505 feet.

Upton County

Texas Pacific Coal & Oil Co.'s No. 2-D Lane, top pay 2,339-2,362 feet, initial production 104 bbls. per day on proration gauge, total depth 2,400 feet.

Ward County

Simms Oil Co.'s No. 1 R. A. Montag, top pay 2,400 feet, initial production 30 bbls. per day, total depth 2,456 feet. Sinclair Prairie Oil Co.'s No. 4 Archenhold, top pay 2,520 feet, increase at 3,032 feet, initial production 334 bbls. per day, total depth 3,059 feet. S. A. Thompson's No. 7-A Johnson, top pay 2,278 feet, increases to 2,519 feet, initial production 151 bbls. per day, total depth 2,534 feet.

COMPLETIONS IN NORTH TEXAS

Archer County

Bonner Oil Co.'s No. 4-D Abercrombie, lime 1,200-10 feet, initial production 55 bbls. per day pumping, total depth 1,210 feet, treated with acid. Cullum and Alexander's No. 11 Falls-Gulf, lime 1,102-21 feet, initial production 20 bbls. per hour flowing, total depth 1,121 feet, treated with acid. Fain & McGaha's No. 19 Logan, lime 1,112-15 feet, initial production 350 bbls., total depth 1,115 feet, treated with acid. Golding and Cochran's No. 5 Lauster, lime 1,294-1,311 feet, initial production 132 bbls., total depth 1,301 feet, treated with acid; No. 6, lime 1,309-15 feet, initial production 160 bbls., total depth 1,315 feet, treated with acid; No. 3-B Perkins, lime 1,484-97 feet, initial production 75 bbls. per day, total d pth 1,497 feet, treated with acid; No. 4-B Perkins, lime 1,485-97 feet, initial production 30 bbls., total depth 1,497 feet, treated with acid.

W. B. Hamilton's No. 13 Coffield, lime 1,209-19 feet, initial production 175 bbls., total depth 1,219 feet, treated with acid; No. 12 Winfield-Ikard, lime 1,135-40 feet, initial production 60 bbls., total depth 1,140 feet, treated with acid. Hines and Martin's No. 1 Wilson, oil sand 1,595-97 feet, initial production 12 bbls. swabbing, total depth 1,597 feet. Howitz and McDaniels' No. 5 Benson dry and abandoned, total depth 1,015 feet; No. 6 Benson, dry and abandoned, total depth 960 feet. W. T. Knight's No. 1 Campbell, lime 1,204-16 feet, initial production 50 bbls., total depth 1,216 feet, treated with acid. Kress and others' No. 4 Hughes, abandoned location. C. B. Long's No. 6 Logan, lime 1,144-56 feet, initial production 240 bbls., total depth 1,156 feet, treated with acid. Charles Martin's No. 2 Sheckels, lime 1,192-99 feet initial production 2 bbls., total depth 1,199 feet, treated with acid.

N. H. Martin's No. 1 Pastusek, dry and abandoned, total depth 1,515 feet. George L. Pace's No. 8 Arnold, lime 1,247-59 feet, initial production 75 bbls., total depth 1,259 feet. Pacific & Atlantic Oil Co.'s No. 1 Richardson, dry and abandoned, total depth 1,302 feet. Perkins & Cullum's No. 16 Boyles, lime 1,160-76 feet, initial production 52 bbls., total depth 1,176 feet, treated with acid; No. 17 Boyles, lime 1,162-79 feet, initial production 65 bbls., total depth 1,179 feet, treated with acid; No. 5-B Falls County, lime 1,104-21 feet, initial production 70 bbls., total depth 1,121 feet, treated with acid; No. 6-B Falls County, lime 1,107-22 feet, initial production 30 bbls. per hour, total depth 1,123 feet, treated with acid; No. 15 Hanzen, lime 1,084-1,105 feet, initial production 300 bbls., total depth 1,105 feet, treated with acid. Petroleum Producers Co.'s No. 2-C Richardson, dry and abandoned, total depth 1,500 feet. Pios & Shultz' No. 1 Archer County, lime 919-28 feet, initial production 75 bbls., total depth 928 feet.

Jack Reynolds' No. 1 Mangold, dry and abandoned, total depth 675 feet. Ross Robertson's No. 3 Ward, lime 930-38 feet, temporarily abandoned, total depth 939 feet. Shappel Oil Co.'s No. 1 Jones, lime 1,194-1,201 feet, initial production 43 bbls. per hour, total depth 1,201 feet, treated with acid. Simms Oil Co.'s No. 1-C Parkey, dry and abandoned, total depth 1,505 feet. Skenn & Barkley's No. 2 Coffield, lime 1,156-65 feet, initial production 20 bbls., total depth 1,165 feet. Stainforth & Ray's No. 2 Wilson, oil sand 1,609-10 feet, initial production 100 bbls., total depth 1,610 feet. Underwood and Consolidated Oil Co.'s No. 4 Ward Brothers, lime 953-64 feet, initial production 100 bbls., total depth 964 feet. United Producers Co.'s No. 3 Logan, abandoned location.

Cooke County

Peckham & Meadors' No. 1 Meadors, oil sand 1,530-40 feet, initial production 35 bbls., total depth 1,580 feet.

Jack County

J. S. Slusher's No. 1 First National

Bank of Dallas, dry and abandoned, total depth 610 feet.

Montague County

Bridwell Oil Co.'s No. 2-B Lay, dry and abandoned, total depth 1,861 feet.

Wichita County

Gulf Production Co.'s No. 2 Mitchell, lime 1,801-10 feet, initial production 9 bbls. per hour, total depth 1,810 feet. Petroleum Producers Co.'s No. 31 Allen & King, dry and abandoned, total depth 1,763 feet.

Wilbarger County

Texas Co.'s No. 9-D Waggoner, oil sand 2,364 feet, initial production 40 bbls., total depth 2,374 feet.

Young County

Finch heirs' No. 1 Douglas, oil sand 654-59 feet, initial production 25 bbls., total depth 659 feet. Gunsite Oil Co.'s No. 1-D Robinson, abandoned, total depth 580 feet. Holbrook & Woods' No. 14 Cullers, oil sand 521-36 feet, initial production 5 bbls., total depth 543 feet. J. H. Kleiner's No. 2 Kirkland, oil sand 708-22 feet, initial production 30 bbls., total depth 722 feet. Petroleum Producers Co.'s No. 9 Belknap Coal Co., oil sand 681-90 feet, initial production 50 bbls., total depth 690 feet. Pitzer & West's No. 1 Haggard, dry and abandoned, total depth 4,082 feet. T. G. Shaw Oil Corp.'s No. 5 Marshall, dry and abandoned, total depth 988 feet. E. D. Wills' No. 1 Ledbetter, lime 598-606 feet, initial production 12 bbls., total depth 606 feet; No. 1 Remington, lime 603-12 feet, initial production 15 bbls., total depth 612 feet, treated with acid. D. L. Wolfe's No. 1 Morris, dry and abandoned, total depth 580 feet.

LOUISIANA-ARKANSAS OFFICERS

SHREVEPORT, La., Apr. 9.—Joseph B. Elam was elected secretary of the Louisiana-Arkansas division of the Mid-Continent Oil and Gas Association for the thirteenth successive year at the annual division meeting here.

All officers with one exception were re-elected for the ensuing year: President, J. R. Crawford; vice presidents, D. W. Harris, Shreveport, Arkansas Natural Gas Corp.; J. S. Hasson, Shreveport, Ohio Oil Co.; R. L. Gay, Zwolle, and M. W. Grimm, Shreveport, elected to succeed J. H. Dugan of El Dorado; treasurer, R. F. Sebastian, Shreveport.

ROCKY MOUNTAIN RUNS

Estimated daily average production for the week ending April 7, follows:

	Bbls.
WYOMING	
Salt Creek	18,470
Big Muddy	1,750
Badger Basin	40
Garland	Shut in
Byron	170
Dallas Derby	600
Dutton Creek	40
Elk Basin	600
Ferris	20
Frannie	1,290
Grass Creek	480
Greybull	10
Hamilton Dome	640
Hudson	220
LaBarge	730
Lance Creek	330
Lost Soldier	1,480
Mule Creek	Shut in
Midway	60
Notches	Shut in
Oregon Basin	Shut in
Osage	850
Pilot Butte	30
Rex Lake	40
Rock River	1,540
South Casper	Shut in
Poison Spider	170
Teapot	10
Total Wyoming	29,570
MONTANA	
Buckley-Border	230
Cat Creek	660
Cut Bank	1,750
Dry Creek	Shut in
Kevin-Sunburst	3,540
Lake Basin	50
Pondera	800
Total Montana	7,030
COLORADO	
Florence	210
Fort Collins and Wellington	520
Iles Dome	830
Moffat	410
Orchard	120
Rangely	80
Tow Creek	220
Total Colorado	2,390
NEW MEXICO	
Artesia	600
Cooper area	100
Empire area	0
Eunice area	1,090
Getty Pool	0
Hobbs	35,600
Hogback	210
Hospah	Shut in
Jal	2,090
Lea area	1,850
Jackson	1,290
Maljamar	170
Rattlesnake	700
Table Mesa	90
Total New Mexico	43,790
Total all fields	82,780
Total previous week	82,070
Difference	710

Wildcat Operations in West Texas

(Continued from Page 73)

Harrison et al's No. 2 Addis, 990 ft. from N line and 2,200 ft. from W line of Sec 35, Blk. 43, Twp. 2a, T.&P. Sur. ..... S.D. 3,836 ft.

Harrison et al's No. 3 Addis, 1,650 ft. from N line and 2,200 ft. from W line of Sec. 35, Blk. 43, Twp. 2a, T.&P. Sur. ..... Location.

Honolulu Oil Co. et al.'s No. 1 Kloh, 660 ft. from E and 1,980 ft. from S of Sec. 33, Blk. 44, Twp. 2a, T.&P. Sur. ..... Drlg. 1,600 ft.

Humble Oil & Ref. Co.'s No. 1 Thomas J. Martin, 330 ft. from N and 440 ft. from E line of Sec. 38, Blk. 43, T.&P. Sur. ..... Cmtd. back to 4,218 ft.; T.D. 4,318 ft.; waiting on cmt. to set.

Humble Oil & Ref. Co.'s No. 2 E. J. Jones, 660 ft. from S line and 1,988 ft. from the W line of Sec. 6, Blk. 44, Twp. 3a, T.&P. Sur. ..... Drlg. 1,500 ft.

Landreth Prod. Co.'s No. 2 O. B. Holt, 660 ft. from S and E lines of Sec. 15, Blk. 43, Twp. 1a, T.&P. Sur. ..... Cellar.

Landreth Prod. Co. and Llano Oil Co.'s No. 2 O. B. Holt, 1,980 ft. from W and 1,980 ft. from N, Sec. 20, Blk. A, P.S.L. Sur. ..... Drlg. 4,336 ft.; 1,500 ft. of oil in hole.

Landreth-Llano Oil Co.'s No. 3 Holt, 660 ft. from N line and 660 ft. from W line of Sec. 20, Blk. A, P.S.L. Sur. ..... Set csg. at 4,009 ft.

McCurdy et al's No. 1 Foster, 330 ft. from S line and 440 ft. from W line of Sec. 36, Blk. 43, Twp. 2a, T.&P. Sur. ..... Drlg. 1,160 ft.

Moran Drlg. Co.'s No. 1 Smith, 330 ft. from N line, 330 ft. from W line of Sec. 13, Blk. 43, Twp. 1a, T.&P. Sur. ..... S.D. 4,425 ft.

Shell Pet. Corp.'s No. 2 Jones, 660 ft. from S line and 1,980 ft. from E line, Sec. 6, Blk. 44, Twp. 3a, T.&P. Sur. ..... Bldg. rig.

Skelly Oil Co.'s No. 1 Addis, 990 ft. from N line, 2,200 ft. from E line of Sec. 35, Blk. 43, Twp. 2a, T.&P. Sur. ..... Flowing 36 bbls. of oil per day through tubing; T.D. 4,375 ft.; plugged back to 4,355 ft.; will acidize.

Stanolind O. & G. Co.'s No. 3 E. F. Cowden, 2,275½ ft. E and 330 ft. from S line, Sec. 34, Blk. 43, Twp. 2a, T.&P. Sur. ..... Drlg. 3,890 ft.

Stanolind Oil & Gas Co.'s No. 5 J. M. Cowden, 660 ft. from N and 1,980 ft. from E line of Sec. 34, Blk. 43, Twp. 1a, T.&P. Sur. ..... Drlg. 4,397 ft.

Fred Turner, Jr.'s No. 1-C F. V. Addis, 1,650 ft. from the N line and 2,200 ft. from the W line of Sec. 35, Blk. 43, Twp. 2a, T.&P. Sur. ..... Drlg. 3,866 ft.

Fred Turner's No. 2-A Addis, 2,310 ft. from N and 440 ft. from E of Sec. 35, Blk. 43, Twp. 2a, T.&P. Sur. ..... Cellar.

FISHER COUNTY

Condor Pet. Co.'s No. 1 Herring, 450 ft. from S and 330 ft. from W line of Sec. 192, Blk. 1, B.B.B.&C. Sur. ..... Rig up.

Condor Pet. Co.'s No. 2 Wilson, 640 ft. from N and 2,310 ft. from W line of Sec. 6, Blk. R, W. E. Richardson Sur. ..... Cellar.

Cranfill & Reynolds' No. 3 J. H. Young, 330 ft. W and 330 ft. S of NE cor. of survey, Sec. 208, B.B.B.&C. Sur. ..... Drlg. 3,010 ft.

Merry Bros. and Perini's No. 1 J. J. Steele, 330 ft. E and 150 ft. N of SW cor. NE Sec. 210, B.B.B.&C. Sur. ..... Swabbed 500 bbls. in 24 hrs.; treated with acid; T.D. 3,190 ft.

E. L. Smith Oil Co.'s No. 1 fee, 450 ft. from S and 330 ft. from E, Sec. 203, Blk. 1, B.B.B.&C. Sur. ..... Drlg. 2,810 ft.

Roeser & Pendleton's No. 2 Frank Steele, 1,470 ft. from S and 990 ft. from W line of Sec. 210, Blk. 1, B.B.B.&C. Sur. ..... Drlg. 2,415 ft.

Sinclair Prairie Oil Co.'s No. 3 Frank Steele, 990 ft. from N and 330 ft. from E line of Sec. 72, Blk. 1, H.&T.C. Sur. ..... Drlg. 2,330 ft.

Stanolind Oil & Gas Co.'s No. 3 F. Steele, 660 ft. from S and 2,310 ft. from W line of Sec. 210, Blk. 1, B.B.B.&C. Sur. ..... S.D. 3,185 ft.

Stanolind Oil & Gas Co.'s No. 4 Steele, 1,170 ft. from S and 1,650 ft. from W line of Sec. 210, Blk. 1, B.B.B.&C. Sur. ..... Drlg. 2,700 ft.

Southern's No. 1 King, 660 ft. from N and 330 ft. from W line of SW Sec. 192, B.B.B.&C. Sur. ..... Drlg. 2,525 ft.

Stanolind Oil & Gas Co.'s No. 5 Steele, 1,170 ft. from S and 990 ft. from W line of Sec. 210, Blk. 1, B.B.B.&C. Sur. ..... Location.

Texas Inland Oil & Gas Co.'s No. 1 First National Bank of Hamlin, 1,980 ft. from N and 990 ft. from W, Sec. 191, Blk. 1, B.B.B.&C. Sur. ..... S.D. 3,107 ft.

Texas Co.'s No. 4 T. A. Jean, 920 ft. from N and E lines of Sec. 201, Blk. 1, B.B.B.&C. Sur. ..... Drlg. 2,620 ft.

GLASSCOCK COUNTY

Empire Gas & Fuel Co.'s No. 2 Hall, 330 ft. from N and W lines of Sec. 21, Blk. 33, Twp. 2a, T.&P. Sur. ..... Waiting on cmt. to set; T.D. 2,060 ft.

John I. Moore et al's No. 1 J. S. McDowell, 1,980 ft. from N line and 660 ft. from E line of Sec. 22, Blk. 34, Twp. 2a, T.&P. Sur. ..... Bldg. derrick.

Noble Drlg. Co.'s No. 1 Edwards, 2,310 ft. from W and 330 ft. from S of Sec. 17, Blk. 33, Twp. 2a, T.&P. Sur. ..... Drlg. 500 ft.

Simms Oil Co.'s No. 1 W. P. Edwards, 330 ft. from S and E lines of Sec. 18, Blk. 33, Twp. 2a, T.&P. Sur... Location.

Simms Oil Co.'s No. 2 W. P. Edwards, 330 ft. from S and 990 ft. from E of Sec. 18, Blk. 33, Twp. 2a, T.&P. Sur. ..... Location.

HOWARD COUNTY

L. C. Harrison et al's No. 2 Texas Land & Mortgage Co., 2,310 ft. from E line and 330 ft. from the S line of Sec. 4, Blk. 30, Twp. 1s, T.&P. Sur. ..... Location.

Humble Oil & Ref. Co.'s No. 2 Settles, 990 ft. from W and 330 ft. from S, Sec. 132, Blk. 29, W.&N.W. Sur. ... Drlg. 2,400 ft.; 1,300 ft. of oil in hole.

Merrick & Lamb's No. 11 Chalk, 2,310 ft. from N line and 990 ft. from W line of Sec. 125, Blk. 29, W.&N.W. Sur. ..... Cmtd. csg.; T.D. 1,592 ft.

Permian Pacific Pet. Co.'s No. 1 Capps, 330 ft. from SW cor. of Sec. 17, Blk. 29, Twp. 1n, T.&P. Sur. ..... Location.

Plymouth Oil Co.'s No. 10 Kloh, 660 ft. from S line and 660 ft. from W line of Sec. 5, Blk. 32, Twp. 2s, T.&P. Sur. ..... Rig up.

Joe Rusk et al's No. 3 G. M. Dodge, 330 ft. from the N line, 330 ft. from the E line, Sec. 9, Blk. 30, Twp. 1s, T.&P. Sur. ..... Moving in machine.

Schermerhorn Oil Co.'s No. 8 Kloh, 1,650 ft. from S and 330 ft. from W, Sec. 13, Blk. 32, Twp. 2s, T.&P. Sur. ..... Swabbing to test; T.D. 2,405 ft.

Sinclair Prairie Oil Co.'s No. 1 Perry Jones, 2,310 ft. from W and 330 ft. from N, Sec. 9, Blk. 30, Twp. 1s, T.&P. Sur. ..... S.D. 818 ft.

Sinclair Prairie Oil Co.'s No. 10 Dodge, 2,310 ft. from S and 330 ft. from E, Sec. 1, Blk. 30, Twp. 1s, T.&P. Sur. ..... T.D. 2,808 ft.; swabbing and cleaning out.

Sinclair Prairie Oil Co.'s No. 12 Dodge, 330 ft. from S line and 2,360 ft. from W line, Sec. 11, Blk. 30, Twp. 1s, T.&P. Sur. ..... Cellar.

Sloan & Lewis' No. 1 Daniell, 2,475 ft. from E and 330 ft. from S of Sec. 18, Blk. 31, Twp. 1n, T.&P. Sur. ... Rig up.

Southern Oil Co.'s No. 1 Denman, 2,310 ft. from N line and 330 ft. from W line of Sec. 10, Blk. 30, Twp. 1s, T.&P. Sur. ..... Cleaning out after shot; T.D. 2,518 ft.

Sun Oil Co.'s No. 6 Phillips, 1,650 ft. from S and 330 ft. from E, Sec. 14, Blk. 33, Twp. 2s, T.&P. Sur. ..... Drlg. 1,274 ft.

Sun Oil Co.'s No. 8-A Hart Phillips, 1,700 ft. from S line and 330 ft. from E line of Sec. 14, Blk. 33, Twp. 2s, T.&P. Sur. ..... Location.

IRION COUNTY

Williams-Short's No. 1 Gentry, 2,200 ft. from N line and 2,080 ft. from W line of Sec. 1, Blk. 3, H.&T.C. Sur. .. S.D. 835 ft.

JONES COUNTY

C. P. Campbell's No. 3 Herndon, 1,450 ft. from S line and 800 ft. from W line, Sec. 6, M.E.P.&P. Sur. ..... S.D.; T.D. 2,475 ft.

Clay & Lancaster's No. 2 Brewer, 700 ft. S and 150 ft. E of NW cor. of J. W. Martin Sur. ..... Rig up and S.D.

Clifton ¾ Brazelton et al's No. 1 Cassey, 200 ft. from N and W lines of SE cor. of Sec. 15, Blk. 15, T.&P. Sur. ..... Location.

Elmer Close et al's No. 1 A. B. Faulks, 330 ft. from N line and 330 ft. from W line of Subdiv. No. 27, Henry Millard Sur. ..... S.D. 1,400 ft.

Condor Pet. Co.'s No. 2 Sayles, 650 ft. from N line and 960 ft. from W line of Sec. 2, Blk. 20, T.&P. Sur. ... Derrick.

Guthrie & Lancaster's No. 1-B Campbell, 330 ft. from N and 2,276 ft. from E line of Sec. 15, Blk. 19, T.&P. Sur. ..... Location.

C. C. Julian Rec.'s No. 4 Swan, 2,160 ft. from N line and 1,320 ft. from W line, I. Miley Sur. No. 231 .... Drlg. 2,100 ft.

Knight, Baker and Pardue's No. 1 A. W. Hill, 540 ft. from N line and 690 ft. from E line of Lot No. 1, Blk. 4, A. W. Hill Sur. ..... Drlg. 1,830 ft.

T. R. Simmons' No. 2 Reynolds, 1,440 ft. from S and 300 ft. from E line of Subdiv. No. 2, A. W. Hill Sur. No. 4 ..... Location.

Southern Oil Corp.'s No. 2 Williams, 330 ft. from S and W line of Sec. 17, Blk. 19, T.&P. Sur. ..... Machine.

Texas Inland Oil Co.'s No. 1 J. E. Sellers, 200 ft. from NE of NW cor. of W. Dick Sur. No. 241, Abst. No. 167 ..... Location.

LOVING COUNTY

R. L. Allen's No. 2 fee, 4,290 ft. from NE line, 990 ft. from SE line, Sec. 32, Blk. 33, H.&T.C. Sur. ..... Location.

R. L. Allen's No. 3 fee, 4,290 ft. from NE line, 990 ft. from NW line, Sec. 32, Blk. 33, H.&T.C. Sur. ..... Location.

R. L. Allen's No. 4 fee, 4,290 ft. from NE line, 330 ft. from NW line, Sec. 32, Blk. 33, H.&T.C. Sur. ..... Location.

The California Oil Co.'s No. 3 Reagan-McElvain, 330 ft. from NW and SW lines of Sec. 34, Blk. 1, W.&N.W. Sur. ..... Rig up.

Eppenauer Drlg. Co.'s No. 3 Hammill & Ellis, 410 ft. from NW and 796 ft. from NE lines of Sec. 2, Blk. 1, W.&N.W. Sur. ..... Cellar.

William Little's No. 1 Reichard & Deble, 1,320 ft. from NE and 1,120 ft. from SE line of Sec. 92, Blk. 1, W.&N.W. Sur. ..... Running csg.; T.D. 4,072 ft.

H. W. Martin's No. 4 Wheat, Ramsey, 990 ft. from SE and SW lines of Sec. 83, Blk. 1, W.&N.W. Sur. ..... Rig up.

Sinclair Prairie Oil Co.'s No. 2 Bell, 410 ft. from SE and 1,025 ft. from NE of Sec. 91, Blk. 1, W.&N.W. Sur. ..... Drlg. 3,425 ft.

Texas Pacific Coal & Oil Co.'s No. 1 Carmine, C of SE of SW of Sec. 40, Blk. 54, Twp. 1, T.&P. Sur. ..... Drlg. 3,930 ft.

PECOS COUNTY

Mack T. Anderson's No. 1 McKenzie, 660 ft. from S line and 660 ft. from W line of Sec. 1, Blk. 604 ..... Location.

California Oil Co.'s No. 14 Mrs. M. A. Smith Lease No. 3, 2,028 ft. from the S line and 1,650 ft. from the E line of Sec. 35, Blk. 194, H.&T.C. Sur. ..... Drlg. plug; T.D. 1,220 ft.

Cardinal Oil Co.'s No. 17-E Tippett, 150 ft. from E line of W half and 730 ft. from N of No. 5-E, Sec. 40, Blk. 194, G.C.&S.F. Sur. ..... Waiting on orders; T.D. 481 ft.

Cardinal Oil Co.'s No. 18 J. H. Tippett, 850 ft. from N and 531 ft. from W of the SE cor. of the W half of Sec. 40, Blk. 194, G.C.&S.F. Sur. ..... T.P. 528 ft.; T.D. 540 ft.; plugged back to 535 ft.

Culberson Bros.'s No. 15-B Monroe, 725 ft. from N line and 1,380 ft. from E line of Sec. 39, Blk. 194, G.C.&S.F. Sur. ..... Location.

Humble Oil & Ref. Co. and Planning Pet. Co.'s No. 1 J. L. Nutt, 2,960 ft. from the N line and 890 ft. from the E line of Sec. 16, Blk. 135, T.&St.L. Sur. ... Drlg. 2,020 ft.

Humble Oil & Ref. Co.'s No. 1 White, Baker, 1,320 ft from N and E lines of Sec. 44, Blk. Z, T.C. Sur. ..... Coring 8,694 ft.

Mid-Kansas Oil & Gas Co.'s No. 18 Smith-Taylor, 1,296 ft. from S line, 1,390 ft. from W line, Sec. 33, Blk. 194, G.C.&S.F. Sur. ..... Location.

Mid-Kansas Oil & Gas Co.'s No. 24 Smith-Taylor, 350 ft. W of S half of Turner Tract No. 1, Sec. 33, Blk. 194, G.C.&S.F. Sur. ..... Road.

Mid-Kansas Oil & Gas Co.'s No. 8 Fred Turner, Jr., 861 ft. from N and 55 ft. E of N half of Tract No. 1, Fred Turner Sur. ..... Testing 1,420 feet.

Mid-Kansas Oil & Gas Co.'s No. 25 Smith-Taylor, 344 ft. W of SE cor. of S half of Turner Trace No. 1, Sec. 33 ..... S.D. 750 ft.

Mid-Kansas Oil & Gas Co.'s No. 26 Smith-Taylor, 395 ft. S and 344 ft. E of SE cor. of S half of Tract No. 1 ..... Cellar.

Mid-Kansas Oil & Gas Co.'s No. 1 Turner, 350 ft. from N line and 350 ft. from W line of Turner Sur. No. 3.. S.D. 590 ft.

Mid-Kansas Oil & Gas Co.'s No. 3 Fred Turner, 535 ft. from S line and 500 ft. from W line of Tract No. 3.. Drlg. 1,462 ft.

Mid-Kansas Oil & Gas Co.'s No. 12-H Yates, 408 ft. S of N line of Sec. 32 and 344 ft. W of SE cor. of S half of Tract No. 1 ..... Location.

Mid-Kansas Oil & Gas Co.'s No. 12-H Yates, 408 ft. S of N line of Sec. 32 and 344 ft. E of SE cor. of S half of Tract No. 1 ..... Location.

Mid-Kansas Oil & Gas Co.'s No. 38-A Yates, 250 ft. E and 205 ft. S from the NE cor. of Turner Tract No. 3 in Sec. 34½, I. G. Yates Sur. ..... Location.

Mid-Kansas Oil & Gas Co.'s No. 39-A Yates, 150 ft. N and 250 ft. W of the NW cor. of Turner tract No. 4, in Sec. 34½, I. G. Yates Sur. ..... Cellar.

Mid-Kansas Oil & Gas Co.'s No. 40-A Yates, 344 ft. from E line and 395 ft. from N of SE cor. of S half of Turner Tract No. 1 ..... S.D. 680 ft.

Mid-Kansas Oil & Gas Co.'s No. 33-B Yates, 1,010 ft. from S line and 500 ft. from W line of Sec. 61, I.&G.N. Sur. ..... Drlg. 500 ft.

Mid-Kansas Oil & Gas Co.'s No. 34-B Yates, 1,088 ft. from N line and 498 ft. from W line of Sec. 61, I.&G.N. Sur. ..... Rig up.

Simms Pet. Co.'s No. 2 A. J. Devlin, 330 ft. from the N line and 330 ft. from the E line of the most easterly NE cor. of Sec. 2, John D. Duval Sur., Abst. No. 3,824 ..... Location.

REAGAN COUNTY

E. P. Kirschner and White's No. 1 W. A. White and McIntosh, 720 ft. from E and 800 ft. from N of Sec. 1,223, E.L.R.R. Sur. ..... Drlg. 2,100 ft.

REEVES COUNTY

Grisham-Hunter Corp.'s No. 1 fee, 1,320 ft. from N line, 1,320 ft. from the E line of Sec. 10, Blk. 50, Twp. 8, T.&P. Sur. ..... Location.

Hugo Freels' No. 1 B. Greenman, 330 ft. from NE line and 231 ft. from SE line of Sec. 21, Blk. 2, H.&G.N. Sur. ..... S.D. 3,985 ft.

C. H. Lockhart et al's No. 1 W. D. Johnson, 330 ft. from N line and 330 ft. from W line of Sec. 3, Blk. C-13, P.S.L. Sur. ..... Moving in material.

RUNNELS COUNTY

Agnew & Sons' No. 2 Fowler, 1,165 ft. from S and 150 ft. from W of NE cor. of Blk. 22, N. Travis Sur. .... Drlg. 1,955 ft.

Agnew and Currie's No. 1 H. E. Wade, 2,640 ft. from N line and 330 ft. from E line of Sec. 24, Domingo Diaz Sur. No. 532 ..... Digging cellar.

Anderson et al's No. 1 W. F. James, 330 ft. from N and W lines of Subdiv. No. 30, Norvell Travis Sur. .... Spudded and S.D.

Castor & Anderson et al's No. 1 W. F. James, 174 ft. from W line of Subd. No. 30, Norvell Travis Sur. No. 533 ..... S.D. 850 ft.

L. L. Evans et al's No. 1 L. P. Woods, 330 ft. from SE line and 200 ft. from SW lines of section, T. Williams Sur. No. 529 (old hole being reworked) ..... Old T.D. 3,485-95 ft.; will treat with acid.

Golden Pet. Corp.'s No. 3 McMillan, 780 ft. from W and 330 ft. from N of Subdiv. No. 22, N. Travis Sur. No. 533 ..... Cmtd. csg.; T.D. 2,515 ft.

Melrose Oil Co.'s No. 1 L. P. Woods, 150 ft. from NE lines and 3,475 ft. from W line of survey, Willett Holmes Sur. No. 100 ..... S.D. 80 ft.

Roberts Oil Corp.'s No. 1 J. L. King, 660 ft. from N line and 470 ft. from W line of most northerly King tract (old well being drilled deeper) ..... Standing with 2,500 ft. water in hole; old T.D. 3,730 ft.

W. S. Sawyer et al's No. 1 Giesecke, 1,211 ft. from N and 4,606 ft. from E lines of survey, Blk. 131, James Hughes Sur. ..... S.D. 1,200 ft.

Prairie Oil & Gas Co.'s No. 1 T. H. Wade, 2,597 ft. from N and 2,140 ft. from E line of Subdiv. No. 10, Norvel Travis Sur. ..... Drlg. 1,695 ft.

R. Tucker et al's No. 5 McMillan, 250 ft. from N and W lines of that part of Subd. No. 22 in the D. Diaz Sur. ..... Location.

Wahlenmaier Pet. Co.'s No. 1 T. C. Hall, 330 ft. out of SW cor. E.T.R.R. Sur. No. 149 ..... S.D. 2,617 ft. to plug; half full of water 2,390-2,400 ft.

F. D. Williams' No. 1 J. L. Elkins, 2,225 ft. from E and 1,100 ft. N of SW cor. of Blk. 13, but in Blk. 13, N. Travis Sur. No. 525 ..... S.D. 1,500 ft.

SCHLEICHER COUNTY

H. E. Cooper et al's No. 1 Bert Page, 1,290 ft. from N line and 1,470 ft. from W line of Sec. 40, Blk. I, G.H.&S.A. Sur. (old well being drilled deeper) ..... Rig burned; T.D. 5,053 ft.

SCURRY COUNTY

Coffield & Guthrie's No. 1 Bryce, 330 ft. from S and W lines of Sec. 133, Blk. 97, H.&T.C. Sur. (old well being drilled deeper) ..... O.T.D. 1,905 ft.

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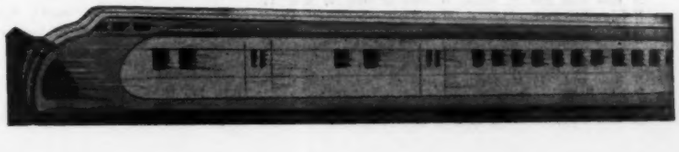

TERRELL COUNTY

H. H. Sides' No. 1 Phelps, 2,157 ft. from N line and 2,483 ft. from the W line of Sec. 5, Blk. 4-A, G. W. Turley Sur. ..... S.D. 5,635 ft.

UPTON COUNTY

Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft. from S and 660 ft. from W, Sec. 197, Blk. F, C.C.S.D.&R.G.N.G. Sur. ..... Drlg. 9,580 ft.

Powell-Gap Oil Co.'s No. 1 J. F. Lane, 1,320 ft. from W line of Sec. 1, G.C.&S.F. Sur. ..... Drlg. 1,625 ft.

Texas Pacific Coal & Oil Co.'s No. 1-C J. H. Sherk, 1,650 ft. from S and 330 ft. from W, Sec. 1, Blk. 3-B, M.K.&T. Sur. ..... Drlg. 2,448 ft.

Texas Pacific Coal & Oil Co. and Simms Pet. Co.'s No. 2 J. F. Lane, 990 ft. from the S line and 330 ft. from the W line of Sec. 36, Blk. 1, M.K.&T. Sur. ..... Drlg. 2,420 ft.

Texas Pacific Coal & Oil Co.'s No. 3-D Lane, 330 ft. from E and 990 ft. from S of Sec. 1, Blk. 3, M.K.&T. Sur. ..... Moving in material.

Texas Pacific Coal & Oil Co. and Humble Oil & Ref. Co.'s No. 13 J. H. Shirk, 990 ft. from the S line and 330 ft. from the E line of Sec. 1, Blk. 3, M.K.&T. Sur. ..... Location.

Theabotal Oil Co.'s No. 2 J. F. Lane, 1,650 ft. from N and 990 ft. from E of Sec. 36, Blk. 1, M.K.&T. Sur. ..... S.D. 250 ft.

Williams & Williams Drlg. Co.'s No. 1 Robbins, 1,600 ft. from S and 1,900 ft. from E, Sec. 4, G.C.&S.F. Sur. ..... Fishing 1,987 ft.

VAL VERDE COUNTY

South-Western Exploration Co.'s No. 1 E. K. Fawcett, 2,310 ft. from S and 2,310 ft. from E, Sec. 14, Blk. L, G.C.&S.F. Sur. ..... Rig up.

WARD COUNTY

Alexander's No. 1 Richter, 1,650 ft. from NW, 1,170 ft. from NE line of Sec. 27, Blk. 33, H.&T.C. Sur. ..... S.D. 1,460 ft.

Alpine Oil & Dev. Co.'s No. 1 Johnson, 990 ft. from NE and 1,321 ft. from SE of Sec. 10, Blk. 32, H.&T.C. Sur. ..... S.D. 2,246 ft.; pumped 3 bbls. of oil in 24 hrs.

Atlantic Oil & Prod. Co.'s No. 15 Johnson, 330 ft. from SE line and 1,650 ft. from NE line of Sec. 9, Blk. 34, H.&T.C. Sur. ..... Waiting on proration gauge; T.D. 2,535 ft.

Atlantic Oil & Prod. Co.'s No. 16 W. D. Johnson, 320 ft. from NE and 330 ft. from NW lines of Sec. 9, Blk. 34, H.&T.C. Sur. ..... Rig up.

L. G. Bradstreet et al's No. 1 Lee Monroe, 2,310 ft. from NE and 330 ft. from SE lines of Sec. 77, Blk. 34, H.&T.C. Sur. ..... S.D. 1,037 ft.

California Oil Co.'s No. 5 York, 1,650 ft. from S and 990 ft. from SW, Sec. 10, Blk. 34, H.&T.C. Sur. ..... Running tubing; T.D. 2,526 ft.

California Oil Co.'s No. 6 J. F. York, 2,310 ft. from the NW line and 990 ft. from the SW line of Sec. 10, Blk. 34, H.&T.C. Sur. ..... Cmtd. csg.; T.D. 2,310 ft.

California Oil Co.'s No. 2 Durgin, 330 ft. from SW and 330 ft. from SE of Sec. 15, Blk. 34, H.&T.C. Sur. ..... Rig up.

S. Caprito et al's No. 3 John B. Bennett, 330 ft. from the NE line and 330 ft. from the SE line of Sec. 16, Blk. 34, H.&T.C. Sur. ..... S.D. 2,147 ft.

C. C. Duffey et al's No. 1 Llano-Sloan, 1,650 ft. from NW and NE lines of Sec. 24, H.&T.C. Sur. ..... Moving in.

Gibraltar Oil Co.'s No. 1 Richter, 1,170 ft. from SW and 1,650 ft. from NW lines of Section 23, Blk. 34, H.&T.C. Sur. ..... Testing; T.D. 2,567 ft.

Gulf Prod. Co.'s No. 42 O'Brien, 2,310 ft. from N and 330 ft. from S, Sec. 17, Blk. F, G.M.M.B.&A. Sur. ..... Drlg. 2,673 ft.

Gulf Prod. Co.'s No. 26 Hutchins, 889 ft. from N line and 440 ft. from W line of Sec. 7, Blk. O, G.M.M. B.&A. Sur. ..... Swabbed and flowed 178 bbls. in 14 hrs.; T.D. 2,733 ft.

Gulf Prod. Co.'s No. 27 Hutchins, 2,310 ft. from N line and 330 ft. from W line of Sec. 4, Blk. F, G.M.M.B.&A. Sur. ..... Drlg. 1,560 ft.

Gulf Prod. Co.'s No. 43 O'Brien, 2,310 ft. from N line and 990 ft. from W line, Sec. 17, Blk. F, G.M.M. B.&A. Sur. ..... Drlg. 2,694 ft.

Gulf Prod. Co.'s No. 44 O'Brien, 2,310 ft. from N line, 330 ft. from W line of Sec. 17, Blk. F, G.M.M.B.&A. Sur. ..... Drlg. 1,975 ft.

Gulf Prod. Co.'s No. 45 O'Brien, 1,650 ft. from S line and 330 ft. from E line of Sec. 17, Blk. F, G.M.M. B.&A. Sur. ..... Rig up.

Gulf Prod. Co.'s No. 46 W. F. O'Brien, 1,650 ft. from S and 990 ft. from E of Sec. 17, Blk. F, G.M.M. B.&A. Sur. ..... Cellar.

Humble Oil & Ref. Co.'s No. 2 Louis Richter, 1,650 ft. from the NW line and 1,470 ft. from the SW line of Sec. 33, Blk. 34, H.&T.C. Sur. ..... Drlg. 2,550 ft.

Jack Leidecker's No. 2 Archenhold, 2,310 ft. from NE and 2,310 ft. from SE, Sec. 23, Blk. 5, H.&T.C. Sur. ..... Cleaning out; T.D. 3,068 ft.; flowed 55 bbls. in 8 hrs.

Jack Leidecker et al's No. 1 Shell-Sloan, 990 ft. from NE and 330 ft. from NW of Sec. 15, Blk. 5, H.&T.C. Sur. ..... Drlg. 2,103 ft.

Rector Oil Co.'s No. 1 Lee Monroe, 660 ft. from NE and 660 ft. from SE of Sec. 62, Blk. 33, H.&T.C. Sur. ..... S.D. 4,649 ft.

Simms Oil Co.'s No. 1 Mason, 2,310 ft. from SE and SW lines of Sec. 14, Blk. 34, H.&T.C. Sur. ..... T.D. 2,456 ft.; will shoot.

Simms Oil Co.'s No. 1 W. D. Johnson, 330 ft. from the NE and SE lines of Sec. 28, Blk. 34, H.&T.C. Sur. ..... Rig up to deepen; T.D. 2,580 ft.

Sinclair Prairie Oil Co.'s No. 4 Archenhold, 2,310 ft. from NW line and 2,310 ft. from SW line of Sec. 23, Blk. 5, H.&T.C. Sur. ..... Running tubing; T.D. 3,059 ft.

Sinclair Prairie Oil Co.'s No. 5 Archenhold, 2,310 ft. from SE and 2,310 ft. from SW of Sec. 23, Blk. 5, H.&T.C. Sur. ..... Material on ground.

Tex-Mex Pet. Corp. et al's No. 2 Llano-Sloan, 990 ft. from NW and 2,310 ft. from SW, Sec. 16, Blk. 5, H.&T.C. Sur. ..... Drlg. 2,655 ft.; 500 ft. of oil in hole.

Tex-Mex Pet. Corp.'s No.2-D Shell-Sloan, 2,310 ft. from NE and 990 ft. from NW, Sec. 16, Blk. 5, H.&T.C. Sur. ..... Cellar.

Tex-Mex Pet. Corp. et al's No. 2 Cal-Archenhold, 990 ft. from NE and 330 ft. from SE, Sec. 23, Blk. 5, H.&T.C. Sur. ..... S.D. 2,295 ft.

Tex-Mex Oil Co.'s No. 3-B Shell-Sloan, 1,650 ft. from NE and 330 ft. from NW lines of Sec. 16, Blk. 5, H.&T.C. Sur. ..... S.D. 250 ft.

Westex Oil Co.'s No. 1 Cynthia Monroe et al, 330 ft. from SE and 330 ft. from SW lines of NE 80 acres of Sec. 2, J. V. Borders Sur. ..... Rig up.

WINKLER COUNTY

Colonial Oil Co.'s No. 4 Amerada-Scarborough 990 ft. from N line and 990 ft. from E line of Sec. 18, Blk. 74, P.S.L. Sur. ..... Drlg. 255 ft.

Magnolia Pet. Co.'s No. 4 Scarborough, 1,650 ft. from N line and 330 ft. from W line of Sec. 1, Blk. 77, P.S.L. Sur. ..... Hole bridged after shot; T.D. 3,050 ft.

Magnolia Petroleum Co.'s No. 2 Walton, 330 ft. from N and 330 ft. from E, Sec. 19, Blk. 74, P.S.L. Sur. ..... Drlg. 2,545 ft.

Magnolia Pet. Co.'s No. 5 Scarborough, 1,650 ft. from N line and 370 ft. from E line of Sec. 18, Blk. 74, P.S.L. Sur. ..... S.D. 160 ft.

McCurdy & Easter's No. 1 Scarborough, 1,650 ft. from W and 2,310 ft. from S, Sec. 1, Blk. 77, P.S.L. Sur. ..... Rigging up and S.D.

Sid Richardson's No. 2-B Scarborough, 2,310 ft. from E line and 990 ft. from S line of Sec. 18, Blk. 74, P.S.L. Sur. ..... Fishing; T.D. 2,719 ft.

Sid Richardson's No. 5-A Scarborough, 330 ft. from W and 190 ft. from S, Sec. 1, Blk. 22-C, P.S.L. Sur. ..... Moving in machine.

Sid Richardson's No. 1-B Tidal-Scarborough, 990 ft. from S line, 330 ft. from W line, Sec. 4, Blk. C-22, P.S.L. Sur. ..... Cmtd. csg.; T.D. 2,601 ft.

Sid Richardson's No. 1-D Scarborough, 990 ft. from N line and 1,650 ft. from E line of Sec. 18, Blk. 74, P.S.L. Sur. ..... Drlg. 3,125 ft.

Sinclair Prairie Oil Co.'s No. 1-C Scarborough, 1,310 ft. from W and 102⅓ ft. S of SE cor. Sec. 1, Blk. 22-C, P.S.L. Sur. ..... Fishing for tools after being shot; T.D. 3,035 ft.

Sinclair Prairie Oil Co.'s No. 2-C State-Scarborough, 102 ft. N and 1,650 ft. W of NE cor. of Sec. 1, Blk. 77, P.S.L. Sur. ..... Rig up.

Tide Water Oil Co.'s No. 2 Scarborough, 105 ft. from S and 990 ft. from E of Sec. 1, Blk. C-22, P.S.L. Sur. ..... Location.

Southwest Texas Proven Areas

(Continued from Page 72)

Killam's No. 5 Welder-Wood, 4,350 ft. from S line and 5,010 ft. from E line of Sur. No. 102 ..... Hard cap 1,832 ft.; sandy shale 1,556-64 ft.

EAST COLE POOL—DUVAL COUNTY

Motes-Campbell's No. 1 Bruni, 150 ft. from NE and SE lines of Sec. 493, Myrtle E. Hale Subd., Mariano Arispe grant ..... T.D. 2,895 ft.; abd.

GOVERNMENT WELLS POOL—DUVAL COUNTY

Capps & Smith's No. 6-A Duval County Ranch, 1,420 ft. from SE and 330 ft. from SW lines of SW Sur. No. 574 ..... T.D. 2,435 ft.; sand 2,403-25 ft., sand 2,381-97 ft.; Cole sand 1,745-70 ft.; running tubing.

Central Producers' No. 2 Lupstack, 150 ft. from S line and 150 ft. from E line of Sur. No. 41 ..... T.D. 2,317 ft.; comp. 10,000,000 ft. gas and spray 50 bbls. oil.

Cox & Hamon's No. 6 State, 990 ft. from N and 170 ft. from E line of NW SW of Sur. No. 60, or 660 ft. S of No. 5 ..... T.D. 2,245 ft.; comp. 25 bbls. hr. through ½-in. choke.

Cox & Hamon's No. 7 State, 990 ft. from S line and 330 ft. from E line of SW of Sur. No. 60 ..... T.D. 2,250 ft.; comp. 150 bbls. day.

Humble Oil & Ref. Co.'s No. 20 Paul White, 2,790 ft. from S and 990 ft. from W line of Sur. No. 58 .... T.D. 2,269 ft.; W.O.C.

K. O. T. Oil Co.'s No. 3 Lundell, 1,470 ft. from S line, 1,170 ft. from W line of Sur. No. 48 ..... T.D. 2,427 ft.; abd.

L. & R. Oil Co.'s No. 2 Webb, 330 ft. from E and 200 ft. from S lines of 12½-ac. tract, Sur. No. 41 ..... Rigging up.

Magnolia Pet. Co.'s No. 21 Duval County Ranch, 660 ft. E of No. 14 and 660 ft. N of No. 10 on 960-ac. tract in Sec. 208, J. Poitevent Sur. ..... Rigging up.

Magnolia Pet. Co.'s No. 23 Duval County Ranch, 1,650 ft. from S line and 330 ft. from W line of Sur. No. 209, or 660 ft. N of No. 22 ..... T.D. 2,335 ft.; comp. 8 bbls. hr., ¼-in. choke.

Magnolia Pet. Co.'s No. 24 Duval County Ranch, 655 ft. N of No. 8 and 314 ft. from E line of Sur. 208.. Location.

Magnolia Pet. Co.'s No. 7-A Hahl, 990 ft. from S line and 330 ft. from E line of SE of Sur. No. 45 ..... Location.

Magnolia Pet. Co.'s No. 1 C. E. Hunt, 330 ft. from N line and 330 ft. from W line of SE of Sur. No. 46... Location.

Magnolia Pet. Co.'s No. 14 G. Wendt, 750 ft. from W line and 330 ft. from E line of SE of NW Sur. 14... Spud.

McKay & Reed's No. 3 State, 330 ft. from S and W lines of Sur. No. 60 ..... Drlg. 2,042 ft.

Reynosa Oil Co.'s No. 6-B Duval County Ranch, 660 ft. N of No. 5-B, Sur. No. 363 ..... T.D. 90 ft.; W.O.C.

Russ et al's No. 5 Hahl, 330 ft. from N and W lines of NW of SW Sur. No. 46 ..... T.D. 2,278 ft.; comp. 45 bbls. day.

Sun Oil Co.'s No. 33 Welderkehr, 330 ft. from S line, 990 ft. from E line of Sur. No. 359 ..... Location.

Sun Oil Co.'s No. 29 Welderkehr, 1,650 ft. from W line, 330 ft. from N line of Sur. No. 359 ..... T.D. 2,306 ft.; S.D.

Sun Oil Co.'s No. 44 Welderkehr, 660 ft. S of No. 43, Sur. No. 359 ..... T.D. 2,265 ft.; comp. 700 bbls.

Sun Oil Co.'s No. 45 Welderkehr, 660 ft. S of No. 32, Sur. No. 359 ..... T.D. 2,283 ft.; comp. 750 bbls.

Sun Oil Co.'s No. 47 Welderkehr, 660 ft. S of No. 46, Sur. No. 359 ..... T.D. 2,261 ft.; comp. 3 bbls. hr., ¾-in. choke.

Sun Oil Co.'s No. 48 Welderkehr, 660 ft. S of No. 47, Sec. 359 ..... Location.

Sun Oil Co.'s No. 49 Welderkehr, 660 ft. S of No. 48, Sec. 359 ..... Drlg. 1,530 ft.

Sun Oil Co.'s No. 50 Welderkehr, 660 ft. S of No. 49, Sec. 359 ..... Location.

Sun Oil Co.'s No. 51 Welderkehr, 660 ft. W of No. 12 ... T.D. 2,264 ft.; swabbing.

Texas Co.'s No. 5 fee, Sur. 362 ..... Set 7-in. 2,288 ft.; W.O.C.

Texas Co.'s No. 7 Duval County Ranch fee, 1,650 ft. S and 330 ft. E of NW cor. SE Sec. 362, J. Poitevent Sur. ..... Elev. 518 ft.; drlg. 1,808 ft.

Trapshooter Reilly's No. 1-B C. W. Hahl, 200 ft. from W line, 330 ft. from S line of Blk. 26, Sur. 250 .... Location.

SARNOSA POOL—DUVAL COUNTY

Magnolia Pet. Co.'s No. 2 D. Ruiz, 411 ft. NE of No. 1 and 330 ft. from NW line of SW of Section in Survey 127 ..... Spud.

KINGSVILLE POOL—KLEBERG COUNTY

Ryals & Bartlett's No. 1 Flato, 150 ft. from N line, 30 ft. from W line of NE SE Sec. 40, of Kleberg Town & Improvement Co. Sur. ..... R.U. and S.D.

JACOB POOL—McMULLEN COUNTY

C. R. Kennon's No. 1 Lark, 810 ft. from W line, 150 ft. from N line of 20-ac. tract, Blk. 27, Scrugham Sur. ..... T.D. 730 ft.; show oil, S.D.

Loma Oil Co.'s No. 15 Jacob ..... T.D. 1,002 ft.; bailing.

Loma Oil Co.'s No. 23 Jacob, 660 ft. S of No. 11, 330 ft. from E line of lease, Sur. No. 7 ..... T.D. 1,003 ft.; S.D.

Loma Oil Co.'s No. 24 Jacob, 660 ft. E of No. 22, Sur. 7.. T.D. 1,057 ft.; S.D.; sand 1,040-57 ft.; set 7-in. at 1,040 ft.; comp. 65 bbls. day.

Loma Oil Co.'s No. 25 Jacob, 660 ft. E of No. 24, Sec. 5.. Moving in.

Texlo Oil Co.'s No. 1 Jacob, 4,633 ft. S and 330 ft. W of SW cor. of Sec. 7, G.H.&H. Sur. ..... T.D. 903 ft.; W.O.C.

CUEVITAS POOL—STARR COUNTY

Sun Oil Co.'s No. 5-B M. Guerra, 1,650 ft. out of NE cor. of "B" lease in La Sacatosa grant ..... T.D. 2,692 ft.; abd.

Sun Oil Co.'s No. 5-C M. Guerra & Son, 1,320 ft. NE of No. 4-C La Sacatosa grant ..... Location.

AGUA DULCE—NUECES COUNTY

Camp et al's No. 2 King, 990 ft. S of N line, 330 ft. W of E line of Sec. 24, R. Garza Sur. ..... Top sand 4,045 ft.; D.S. test showed 2½ fourbles salt wtr., some oil and gas.

Garland Clymore's No. 2 Ollie Purl ..... D.S. test 4,893-4,900 ft., showed 100 ft. S.W.; S.D. 5,010 ft.

SAXET FIELD—NUECES COUNTY

South Mineral Oil Co.'s No. 1 J. W. Page, E. Villareal Sur., 471 ft. from E line, 160 ft. from S line of 150-ac. tract ..... T.D. 4,079, 4,073-79, D.S. test 5 bbls. oil, 75 lbs. W.P. through ¼-in. choke 5 min.; S.D.

United Prod. Co.'s No. 2 Ollie Purl, Peters Subd. No. 3, Sec. 6, Blk. 3, C of Blk. 3 ..... T.D. 4,805 ft.; W.O.C.

LOS OLMOS POOL—STARR COUNTY

Los Olmos O. & G. Co.'s No. 57 Kelsey Bass, 150 ft. from N line, 568 ft. from W line of SE SW Sec. 6, Porciona 75, 76 and 77 ..... T.D. 640 ft.; standing; depth corrected.

LAUREL POOL—WEBB COUNTY

South Texas Oil Co.'s No. 11 Laurel, 200 ft. from W line and 150 ft. from S line of Blk. 4, Sur. 270 ..... D.S. test 1,759-82 ft. showed gas, oil and mud; S.D.

BYERSVILLE POOL—WILLIAMSON COUNTY

Otto Stolley's No. 1 Charles L. Byer, beginning at SE cor. of P. Cartwright Sur. SW 4,700 ft. along survey line then 950 ft. SE at right angles in P. Stoddard Sur. ..... T.D. 1,020 ft.; fishing.

JENNINGS POOL—ZAPATA COUNTY

Texas Co.'s No. 44 Measles, 395 ft. S, 77° 33 min. E of No. 39 Cerrito Blanco grant ..... Set. 10-in. at 44 ft.; drlg. 1,220 ft.

MIRANDO VALLEY POOL—ZAPATA COUNTY

O. W. Killam's No. 2 Hinnant, 710 ft. NW line and 175 ft. SW line of Blk. 1, Sur. 10 ..... T.D. 1,692 ft.; abd.

Wildcat Operations in Southwest Texas

Week Ending April 7

BANDERA COUNTY

Company, well, farm name, section and block—	Remarks:
Palm-Winn Oil Co.'s (P. H. Winkle) No. 1 R. B. Watson, 600 ft. N of center of S line of tract in Sur. No. 71, 2 miles N from Medina City	T.D. 875 ft.; S.D.
Parkford et al's No. 1 Mrs. R. L. Duke, G.H.&S.A. Sur., Sec. 7	Material.
Peerless O. & G. Co.'s No. 1 Garrison Sur. No. 506, 1,500 ft. from N and 2,700 ft. from E lines of Sur. (8 mi. SW of Medina)	Location.

BASTROP COUNTY

Chas. E. Anderson's (Ca-Tex O. & G. Dev. Co.) No. 1 Pendergrass, 1,343 ft. from NE line, 310 ft. from SE line of 130-ac. tract in Henry Warnell Sur.	T.D. 1,718 ft.; set csg. 1,639 ft.; S.D. 1,815 ft.
Anderson's No. 1 R. M. Trigg, J. Stewart Sur.	T.D. 1,775 ft.; S.D.; top Serp. 1,438 ft.; show oil 1,685-1,703 ft. in Serp.
Chiquita Oil Co.'s No. 1 B. L. Duran, 660 ft. from NW line and 660 ft. from SW line of 102-ac. tract in L. Flint Sur.	Derrick.
Hinton et al's No. 1 Glass, 2,000 ft. from NW and 1,300 ft. from SW lines of Ferguson estate 239-ac. tract in Henry Warnell Sur.	Top Edwards 1,907 ft.; T.D. 1,909 ft.; showing sulphur water.
Marts & Bevins' No. 1 Lucy George, George Glasscock Sur., 4,200 ft. from NW line and 10,900 ft. from SW line of survey	Top Serpentine 2,212 ft.; drlg. 2,237 ft.
Ogden and Sun Oil Co.'s No. 1 J. W. Snowden, 300 ft. from NE line and 255 ft. from SE line of 119-ac. tract in Jasper Standifer Sur.	Moving in rig.
Three Oil Co.'s No. 1 M. Ingram, H. S. Morgan Sur.	Derrick.

BEE COUNTY

Caeser Oil Co.'s No. 1 Pulling, F. Lewis Sur., 150 ft. from NW line, 150 ft. from SW line of 35-ac. tract.	T.D. 100 ft.; S.D.; set 10-in. csg.
Howeth & Swiger's No. 1 Scott, 1,043 ft. from S line of Blk. 30 of Howeth & Swiger Subd., Molina Sur.	Drlg. 1,500 ft.
Elbert Jeanes' No. 1 G. L. Courtney, 1,600 ft. from E line, 330 ft. from S line of tract, G. A. Kerr Sur., 1½ miles NE of Pettus	Rigging up.
McLain et al's No. 3 Laura Weiss, B.&B. Sur., 660 ft. E of No. 1	Drlg. 150 ft.
Phillips Pet. Co.'s No. 1 Morgan, 4,950 ft. from W, 3,270 ft. from N lines of 13,930-ac. tract, Eyles Sur.	Drlg. 3,550 ft.

BELL COUNTY

Gus Winston et al's No. 3 Warrick, 100 ft. N of James Scroggins' No. 1 Warrick, in Elijah Ingram Sur.	Drlg. 2,980 ft.

BEXAR COUNTY

A. M. Blume's No. 2 Louis Ridder, approximately 2,350 ft. N of R.R., 700 ft. E of W line of J. M. Baerera Sur. No. 58	T.D. 1,160 ft.; S.D.
B. M. Burger's No. 1 Billhartz, 150 ft. from N and E lines of 50-ac. tract in Francisco Roler Sur., 1¼ mil. SE of Von Ormy	Drlg. 650 ft.
Keiffer et al's No. 1 Ruiz, SE cor. of 82-ac. tract in F. Rowland Sur. No. 48	S.D. 1,625 ft.
Dingman & Russell's No. 1 R. J. Coffey, 1,228 ft. from SE line, 1,086 ft. from SW line of 420-acre tract in Rodriguez Sur.	T.D. 1,400 ft.; S.D. to drill to Edwards.
S. E. Gantt's No. 1 A. B. Stephen, 2,650 ft. from SW line, 740 ft. from SE line of P. W. Hays Sur.	T.D. 450 ft.; shale.
Thos. Gorton's No. 1 Edward Jackel, 600 ft. from N line, 800 ft. from E line of tract in J. Ward Sur.	T.D. 500 ft.; S.D.
George L. O'Neill's No. 1 Neimann in Juan Montez Sur. No. 6	T.D. 1,675 ft.; S.D. for orders.
J. W. Johnson's No. 1 Willow Springs, 150 ft. from N and W lines of lease in B. Munoz Sur. No. 151	T.D. 2,021 ft.; P.B. 1,940 ft.; S.D. Made SW and some oil.
Fred A. Perrenot's No. 1 Russell, 750 varas from NE line, 54 varas from NW line of 500-ac. tract in Rodriguez Sur.	T.D. 1,315 ft.; standing.
N. H. Price's No. 1 Barragas, 150 ft. from S and E lines of 60-ac. tract	T.D. 419 ft.; S.D.; to be comp. by H. E. Lewis.
N. S. Powell's No. 1 M. Sanner, 400 ft. from E line, 5,280 ft. from N line of 128-ac. tract in Ruiz Sur. No. 47	Drlg. 870 ft.
C. A. Smith's No. 1 Henry Lamb, 750 ft. from N and E lines of Lamb farm, in de la Garza grant	T.D. 965 ft.; S.D.
A. J. Trawalter's No. 2 fee, 150 ft. from N line and 150 ft. from W line of farm in Stephen Jett Sur., 1 mi. NW of Von Ormy	Location.
A. A. Wietzel's No. 1 fee, F. Ricardo Sur.	T.D. 980 ft.; S.D.
C. Witherspoon's No. 1 Thos. Dillon, A. G. Mays Sur.	Location.

BLANCO COUNTY

Rogers et al's (formerly Pedernales Pet. Corp.) No. 1 Lester, 550 ft. from N line, 6,100 ft. from W line of Antonio Bendrand Sur.	Drlg. 1,242 ft.

BURLESON COUNTY

Brush & Hays' No. 1 C. W. Young, 150 ft. from SW line and 780 ft. from SE line of 140-ac. tract in Bird Sur. (7 mi. SE of Caldwell)	T.D. 1,805 ft.; trying to sidetrack, shale at 300 ft.

CALDWELL COUNTY

Adams & Lyles' No. 1 S. C. Cole, 330 ft. from W and 824 ft. from S line of lease, Tinney Sur.	Drlg. 2,220 ft.
S. S. Cargill's No. 2 Damereau, 150 ft. from W line, 450 ft. from N line of D. Cooper Sur.	S.D. 2,102 ft.
Wilford Keen et al's No. 1 Wm. Ewalk, 150 ft. from E line and 150 ft. from N line of 126-ac. tract, or 3,650 ft. from N and 1,300 ft. from E lines of Jas. George Sur. (3½ mi. from Lockhart)	Drlg. 924 ft.
Simmons' No. 1 W. H. Callahan, 1,500 ft. from W and 750 ft. from S lines of 176.6-ac. tract, Miller Sur. (6¼ miles SE of Lockhart)	S.D. 2,250 ft.; top Georgetown at 2,200 ft.
Webster Oil & Gas Co.'s No. 1 Robinson, 770 ft. S and E from NW cor. of 100-ac. tract in John A. Neill Sur.	S.D. 2,290 ft.

CALHOUN COUNTY

J. Edward Mills et al's No. 1 Emma Johnson, 1,650 ft. from N line and 4,250 ft. from W line of Jas. Pinchback Sur. (6 mi. SE of Lockhart)	Drlg. 540 ft.
Heep Oil Corp.'s No. 2 P. Welder, Day Land & Cattle Co., A-228, center of Sur., 2¾ mi. W of SW of McKinney, 650 ft. NW line and 3,950 ft. SW line of Sur. (4 mi. W of Clark)	T.D. 915; W.O.C.

COMAL COUNTY

Theo. Hicks et al's No. 1 Gruene, 435 ft. from NE line, 414 ft. from NW line of H. Foster Sur. No. 34, 3 mi. NE from New Braunfels	Spudded and standing.

DEWITT COUNTY

Humble O. & R. Co.'s No. 1 Kuester, 4,100 ft. from N line, 466 ft. from E line of lease in S.A.&M.G. R.R. Sur. No. 7	Drlg. shale 5,205 ft.
Keystone Royalties' No. 1 L. T. Burns, 1,000 ft. from N and W lines of 265-ac. tract in McNutt Sur., Blk. 22	Location.

DUVAL COUNTY

Cecil Best's No. 1 Parr, 1,320 ft. from SE line and 990 ft. from NE line of Sur. 134 (10 miles W and 2 miles N of San Diego)	T.D. 20 ft.; W.O.C.
Buffalo-Texas Drlg. Synd., Inc.'s No. 1 Escobar, 700 varas from W line, 1,000 varas from N line of 930-ac. tract in Francisco grant	Coring 1,850 ft.
Chiquita Oil Co.'s No. 1 Richardson, 330 ft. from N and E lines of Sec. 5	Drlg. 480 ft.
Clark & Cowden's No. 2 J. M. Richardson, 417 ft. from N line and 261 ft. from W line of Blk. No. 1, Sec. 3.	T.D. 1,797 ft.; comp. 4,000,000 ft. gas.
Continental Oil Co.'s No. 1 R. Driscoll Est., 180 ft. from S, 1,370 ft. from E lines of lease, Sec. 448	Drlg. 3,303 ft.
C. G. Mortimer's No. 1 W. R. Peters, 330 ft. from S line, 990 ft. from W line of NE Sur. No. 176	T.D. 2,697 ft.; to P.B. and comp. in Gov. Wells sand.
A. H. Richardson et al's No. 1 Drummond, 660 ft. from N and W lines of Sur. No. 392 (north central part of county)	Drlg. 1,905 ft.
Windsor Oil Co.'s No. 1 B. Peters, 100 ft. from S and 2,209 ft. from E lines of Sur. 34	S.D. 310 ft.
Witherspoon et al's No. 1, Richardson Sur. No. 5	Rigging up.
Louis Yeager's No. 1 fee	S.D. 920 ft.
Louis Yeager's No. 1 Yeager, 694 ft. from W line, 1,527 ft. from S line of Sur. No. 38	T.D. 865 ft.; S.D.

EDWARDS COUNTY

Love and Evans' No. 1 Steve Brown, 660 ft. from N and E lines of Sec. 66, G.W.T.&P.R.R. Sur., 15 miles W of Rock Springs	S.D. 3,002 ft.

FRIO COUNTY

Amerada Pet. Co.'s No. 2 Halff & Oppenheimer, begin. at most easterly N cor. of John H. Gibson Sur. No. 16, thence SE along NE line of Sur. 2,100 ft., thence SW at right angles 800 ft. (4 mi. SW of Pearsall)	Location.
Humble Oil & Ref. Co.'s No. 2 Woodward	Drlg. shale 2,042 ft.

GILLESPIE COUNTY

Powers et al's No. 2 Lindig, 12,700 ft. from S line, 1,333 ft. from W line of Maria Josephine Guerrera Sur.	Location.

GOLIAD COUNTY

H. H. Weinert's No. 1 Grady Smith, 330 ft. from NW line and 330 ft. from SW line of 142-ac. tract in B. & B. Sur. No. 25 (N part of county)	Location.

GUADALUPE COUNTY

A. F. Barnhill's No. 2 F. A. Phullman, 1,300 ft. from N line, 152 ft. from E line of lease in L. Bollinger Sur.	Edwards, T.D. 2,452 ft.; tested S.W.; abd.
J. E. Clark et al's No. 1 Howell, 1,500 ft. S of road and 200 ft. from E line of tract	Top chalk 715 ft.; top Eagleford S.S.O. 860 ft., top Buda 888 ft., top Del Rio 940 ft. and Edwards; S.D. 1,021 ft.; abd.
M. W. Eiser's No. 2 Wells, 1,700 ft. from S line, 200 ft. from W line of Blk. 3, Subd. 1, J. de la Baume Sur.	Location.
O. W. Killam's No. 1 Max Blume, 300 ft. from W line and 5,050 ft. from S line of 116-ac. tract in John E. King Sur.	Rigging up.
Adolph Seideman's No. 1 Seideman, 280 ft. from NE line, 470 ft. from NW line of Mrs. Adolph Seideman 147.5-ac. tract (Subd. 110) in Antonio Maria Esnaurrizer Sur. No. 11	C.O. 2,524 ft.
Trinity Drillers' No. 1 Ball, 330 ft. from NE and SE lines of 91-ac. tract in L. H. Peters Sur.	Location abd.
L. E. Trout's No. 1 McKee, Green DeWitt Sur.	Rigging up.

HAYS COUNTY

J. C. Crowder's No. 1 Burnett, 2,370 ft. from E line, 1,400 ft. from N line of tract in J. Ingram Sur.	T.D. 420 ft.; set csg.; S.D.

HIDALGO COUNTY

D. D. Oil Co.'s No. 1 Mrs. L. George, 330 ft. from N and W lines of 40-ac. tract in Share 13, Porcion 41.	Location.
Union Sulphur Co.'s No. 1 American Rio Grande L. & I. Co., 400 ft. S and W of NE cor. of Lot 229, Blk. 59 (½ mi. N of Mercedes)	Set 13-in. csg. at 1,134 ft.; drlg. 2,325 ft.
Weekley Oil Corp.'s No. 1 Guerra, Porcion 41	T.D. 3,102 ft.; abd.

JIM HOGG COUNTY

Houston Oil Co.'s No. 5 Cartwright, 1,150 ft. from SW line and 1,775 ft. from SE line of J. M. Colchado Sur.	Location.
A. W. Majors' No. 1 M. Guerra & Son, 2,444 ft. from W line, 3,698 ft. from N line of Sur. No. 369, in SW part of county	Drlg. 2,556 ft.

JIM WELLS COUNTY

Plymouth Oil Co.'s No. 1 Cuero Cattle Co., 330 ft. from S and W lines of H.T.&B. Sur. No. 7, 2⅛ miles W from Alfred	Rigging up.
Putnam and Bode's No. 1 McCarley, 600 ft. from SE line and 1,500 ft. from NE line of 300-ac. tract, Blk. A, of W. H. Bode Subdivision of Wallace D. Wade Ranch	T.D. 262 ft.; W.O.C.
E. H. Robertson's No. 1 C. Mull, 330 ft. N of N end of division line between Lots 4-A and 5-A of Seefelds farm lots, or 1,300 ft. from W line, 300 ft. from N line of Pointevant Sur. No. 205	Drlg. 1,900 ft.

KARNES COUNTY

Campbell et al's No. 1 Ira Coats, 330 ft. from S and E lines of 260-ac. tract in Carlos Martinez Sur.	T.D. 3,005 ft.; S.D.
Magnolia Pet. Co.'s No. 1 Scarborough, Eliz. Talley Sur., 330 ft. S and E from NW cor. of tract	600 lbs. T.P., 300 lbs. C.P.; set 7-in. at 3,619 ft.; T.D. 3,639 ft.; comp. 20,000,000 ft. gas.
George Ray's No. 1 Radford, 666 ft. from SW and 3,422 ft. from SE lines of 753-ac. tract in Nichols Sur. (4 miles NE of North Pettus Field)	Rigging up.
C. J. Webster's No. 1 J. B. Cannon, 1,140 ft. from N line, 250 ft. from E line of 80-ac. tract in Lambrano Sur.	T.D. 1,790 ft.; standing; may deepen to Yegua.

KENDALL COUNTY

Martin's No. 1 Houston, Thomas Leople Sur. No. 761	Top black shale 1,028 ft.; T.D. 1,986 ft.; to deepen.
A. P. Pierce's No. 1 Werner, in SW cor. of 40-ac. tract, 150 ft. from S and W lines of J. F. Torrey Sur.	T.D. 993 ft.; standing.
W. E. Waldrip's No. 1 Charles Meckel, 300 ft. from E line, 3,300 ft. from S line of Thos. J. Sweeney Sur. No. 10	S.D. 515 ft.; abd.

KERR COUNTY

G. F. Schreiner's No. 3 Love, 1,420 ft. from W line, 1,260 ft. from S line of Sur. No. 1,594	Location.
Van Duyn & Moore's No. 1 Nowlin, 2,000 ft. from E line, 3,200 ft. from N line of Jas. R. Bettner Sur. No. 99	T.D. 1,040 ft.; standing.

KLEBERG COUNTY

J. S. Brown's No. 1 Antone Dietz, Sec. 7, Hotch estate	Drlg. 2,366 ft.

Harry Clark's No. 1 V. J. Kivlin, 360 ft. from E line, 400 ft. from S line of Sec. 39, Blk. 5, Kleberg Town & Improvement Co. Sur. ..... T.D. 2,350 ft.; reaming; S.O. 2,315-16 ft.; S.D.

LASALLE COUNTY

G. O. Ball's No. 1 J. M. Martin, 330 ft. from S and W lines of Martin 485.6-ac. tract, Sur. 683 ..... Moving in and S.D.

LEE COUNTY

Blackmar et al's No. 1 Beaty, William Nichols Sur. .... Location.
Jas. E. Pederson's No. 1 Turner, David Hudson Sur. .... Digging pits.
H. A. Sherlack's No. 1 Otto, 736 ft. from NW line, 1,310 ft. from NE line of 87.5-ac. tract in Thomas Morrow Sur. ..... Rig up and S.D.

LIVE OAK COUNTY

Marine Oil Corp.'s No. 1 J. B. Dunning, 4,500 ft. from E line, 150 ft. from N line of 462-ac. tract in Maria Bridget Kiolin Sur. ..... T.D. 5,269 ft.; preparing to complete, est. 50 bbls.

Witherspoon Oil Co.'s No. 1 Clements, Elizabeth Jordan Sur., Blk. 15, 600 ft. from S line and 600 ft. from W line of 162-ac. tract ..... T.P. 485 ft.; blew out and caught fire; abd.

McMULLEN COUNTY

Bedwell's No. 1 Brown, Sur. No. 54 ..... T.D. 771 ft.; S.D.
Cotulla's No. 1 Gordon, 330 ft. from N and W lines of S½ of Sec. 127 ..... T.D. 595 ft.; S.D.
Gleason et al's No. 1 Miles, Chas. Stephens Sur. ..... Location.
Henshaw Bros.' No. 1 Lachusa, 2,800 ft. from N and E lines of Sur. No. 478 ..... Moving in.
Magnolia Pet. Co.'s No. 1 Kincaid, 8,800 ft. N of Nueces River and 466 ft. E of Sur. No. 199 ..... Drlg. 3,450 ft.
LeFevre & Spice's No. 3 Hagist, 2,970 ft. from E line and 1,650 ft. from S line of Sec. 17, Blk. 5, H.&T.C. Sur. ..... Location abd.
C. C. Shumway's No. 4 Shiner, 330 ft. from W line, 660 ft. from N line of SE Sec. 38, Shumway's Subd., Shiner ranch ..... D.S. test 1,548-85 ft. showed 3 jts. S.W., oil and mud; T.D. 1,962 ft.; abd.

Texio Oil Co.'s No. 1 Two Rivers Ranch Co., 330 ft. from N line and 330 ft. from E line of Sec. 81 ..... Rigging up.
Ike Taylor's No. 1 Wolfe, 330 ft. from N line and 330 ft. from E line of Sec. 81 ..... Location.

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MEDINA COUNTY

Humble O. & R. Co.'s No. 1 J. D. Dodson, 330 ft. from N and 660 ft. from W line of A. Kempf Sur. ..... T.D. lime 2,672 ft.; top Edwards 2,647 ft.; abd.
Scoggin & Sanders' No. 1 L. W. Burell, 150 ft. from E line, 1,750 ft. from N line of M. E. Gage Sur. No. 395 ..... Drlg. 685 ft.

MILAM COUNTY

O. H. Birdwell's No. 1 J. R. Bartek, 150 ft. from N line, 180 ft. from W line of 88-ac. tract in J. A. de Pena Sur. ..... S.D. 1,510 ft.
Marvel Wells' No. 1 fee, J. Liendo Sur. ..... Top Austin 1,445 ft.; top Georgetown 2,175 ft.; S.D. 2,305 ft.

NUECES COUNTY

Clymore Oil Co.'s No. 1 Ingram, 660 ft. from N and E lines of Blk. No. 5, Sec. 6 ..... Drlg. 4,700 ft.
Diadem Oil Co.'s No. 1 J. C. Mayo, 1,000 ft. along line from SE cor. in NW direction, thence due N 300 ft. (near Robstown), Sec. 23 ..... Derrick.
Nuco Oil Co.'s No. 1 Synthia Bluntzer, Herrera Sur., 2,240 ft. from S line, 330 ft. from W line of 639.27-ac. tract ..... T.D. 1,535 ft.; S.D.
Sullivan and Texon Royalty Co.'s No. 1 Simmons & Perry, 330 ft. from S and W lines of NE of square 640-ac. section out of SW cor. of Simmons & Perry tract, 2 miles east of Agua Dulce Field ..... Fishing 4,228 ft.

SAN PATRICIO COUNTY

Atkins & O'Neil's No. 1 Welder, 7,898 ft. from E and 317 ft. from S lines of Juan Hart & Sons and John Lucas Sur. (2 miles W of Angelita) ..... Drlg. 4,500 ft.
C. B. Bunte's No. 1 J. D. Holland, Sec. 26 of Eaton's Subd., 660 ft. from E and 1,320 ft. from N lines of lease (2 mi. SW of Sinton) ..... Drlg. 4,190 ft.; tested 24 fourbles S.W. with S.G. 2,846-74, top sand 2,830 ft.
Carpenter et al's No. 1 Sadler, 300 ft. each way out of SE cor. Blk. 1, Sec. 33, T. Peres Sur. ..... R.U.
DeLange et al's No. 1 Sevier, 150 ft. N of S line, 7,650 ft. E of most southerly W line of Clara Driskol, Sevier, 7,045-ac. tract in Antonio Ramirez Sur., N of Premont area ..... S.D. 1,450 ft.
Diadem Oil Co.'s No. 1 J. C. Mayo, 300 ft. from S and 1,000 ft. from E line of Sec. 23, George H. Powell Subd. of the Driscoll ranch (8 of Robstown) ..... Location.
Plymouth Oil Co.'s No. 1 Welder, 4,700 ft. N of Chiltipin Creek, 900 ft. from W line of J. M. and F. Portilla Sur., 1¼ miles N from Sinton ..... Top Discorbis 4,100 ft.; drlg. at 6,460 ft.

STARR COUNTY

Chas. H. Andrews et al's No. 1 A. Guerra, San Jose grant, 330 ft. from N and 150 ft. from E line of Sec. 6 (NE part of county) ..... Drlg. 200 ft.
B. & B. Oil Co.'s No. 2 Kelsey Bass, 330 ft. from W and S lines of Blk. 12 of Subd. of Porcions 86 and 87, jurisdiction Camargo ..... Rigged up and S.D.
Dean Bros.' No. 1 M. M. Garcia, 2,150 ft. from S line, 4,600 ft. from W line of Sur. No. 916 ..... Location.
Goodwin-Yantis' No. 5 Anna K. Bass, 150 ft. from S and E lines of Blk. No. 10, Sur. No. 3, Porcion 87 ..... Location.
Goodwin-Yantis' No. 4-A Kelsey Bass, 1,300 ft. NW of No. 3 in Porcions 86 and 87, Ancient Jurisdiction of Camargo ..... Location.
Great Plains Oil Co.'s No. 1 Sanches, 660 ft. from W line, 330 ft. from S line of SE NW of Sur. No. 344 .. T.D. 3,517 ft.; preparing to resume drlg.; 879-87 ft. sand S.O. and G. 997 ft.; bailed S.O. and S.W.; D.S. test 2,579-91, 2 jts. mud; fishing bailer.
Jeffries-Lambeth Drlg. Co.'s No. 2 Starr County Cattle Co., N of No. 1 in Share 60, Porcion 89 ..... Sand 2,505-18 ft.; D.S. test 2,490-2,510 ft.; 4 thribbles fluid showing oil; T.D. 2,520 ft.; shut in; est. 125 bbls.
W. H. Liber's No. 1 I. Y. Garcia, 1,546 ft. from N line, 962 ft. from W line of 254-ac. tract in Porcion No. 75, jurisdiction of Camargo ..... T.D. 1,040 ft.; S.D.
McDonald & Campbell's No. 1 C. C. Bowman, 330 ft. from N and W lines of Blk. 13 ..... Spud and S.D.
Myers, Sullivan & Jenkins' No. 1 Starr County Cattle Co., 330 ft. from N line, 330 ft. from W line, Blk. 62, Porcion 89, Share 60 ..... T.D. 2,520 ft.; preparing to start up.
R. D. Perkins & Hoffman's No. 1 E. A. Peffler, 3,090 ft. from W line, 2,480 ft. from S line of Sur. 933 ... T.D. 1,547 ft.; S.D.
Sioux Oil Co.'s No. 5 Goodrich, Por. 81 ..... T.D. 1,408 ft.; abd.
Sioux Oil Co.'s No. 6 Goodrich, 200 ft. from W line and 250 ft. from E line of Blk. 3, Share 5, Porcion 81 ..... Drlg. 500 ft.

UVALDE COUNTY

Evans & Johnson's No. 1 Farris, J Hammons Sur. ..... Drlg. shale 510 ft.; S.D.
T. T. Word et al's No. 1 K. S. Truelove, 650 ft. from N line and 3,000 ft. from E line of Daniel Elam Sur. No. 651 (7½ mi. NW of Sabinal) ..... T.D. 200 ft.; S.D.

WEBB COUNTY

L. E. Lockhart's No. 1 B. Elkel, 330 ft. from N line, 260 ft. from E line of Sur. No. 1,672 ..... T.D. 1,200 ft.; S.D.
Don E. Megahan et al's No. 1 F. C. Gowdy, 330 ft. from E line, 1,450 ft. from N line of Sur. No. 2,112.. Drlg. 3,560 ft.
Shankel et al's No. 1 Saldivar, Sur. 452 of J. V. Borrego grant ..... R.U.
Weekley Oil Corp.'s No. 1 R. Salvidor, 1,269 ft. from E line and 243 ft. from N line of Sec. 657, Borrego grant (SE part of county) ..... Rigging up.

WILSON COUNTY

Bidnar & Powell's No. 1 L. C. George, 400 ft. from SE line, 475 ft. from SW line of 86.5-ac. tract in C. Diaz Sur. No. 44 ..... T.D. 1,536 ft.; S.D.
Pfiel & Vogel's No. 1 Gutzeit, Flores grant, 150 ft. N of road and 150 ft. from W line of farm, 7 mi. NW of Floresville ..... Drlg. 920 ft.
J. C. Yancey's No. 1 Lissy, D. J. Holt Sur., 1,700 ft. from SE and 6,500 ft. from most westerly SW cor. of survey ..... Spudded and S.D.

WILLIAMSON COUNTY

Atlantic-Pacific Corp.'s No. 1 W. C. Daniel, 500 ft. from SW line, 2,100 ft. from SE line of Washington P. Reese Sur. No. 2 ..... Drlg. 635 ft.
McLean et al's No. 2 R. C. Miller, 300 ft. to S line, 100 ft. to W line of tract, B. Manlove Sur. ..... T.D. 2,300 ft.; cleaning out.
G. L. Rowsey, trustee's No. 3 Brochmeyer, 150 ft. out of SW cor. of N 30 acres or 2,400 ft. from SE line and 910 ft. from SW line of H. White Sur. ..... Spud and S.D.
G. L. Rowsey, trustee's No. 2 John Rieger, 4,450 ft. from SE line and 150 ft. from SW line of H. White Sur. ..... Location.
G. L. Rowsey, trustee's No. 2 Dabney Bass, H. White Sur. ..... Location.
R. S. Wilson's No. 2 Sing, 300 ft. from SW line, 1,250 ft. from SE line of T. A. Moore Sur. ..... T.D. 530 ft.; washing.

ZAPATA COUNTY

Danvers & Harrison's No. 1 Trevino, 150 ft. from NW and SE lines of SW¼ of Share E, Charco Redondo grant ..... T.D. 51 ft.; S.D.
French Oil Corp.'s No. 2 M. Garza, center of Blk. 8, Sur. 284 ..... Location.
Muckelroy's No. 1 Flores, on NE line and 75 ft. from SE line of Lot 2, Blk. 30, Muckelroy Subd. of Porcion No. 37 ..... Derrick.
Kliener & Hill's No. 8 Gutierrez, Share 4, Comitas grant.. Rigging up.
Joe Palmer's No. 11 S. Vela, 330 ft. from NE and SE lines of Blk. 170, Share 4 of L. Grillo grant, (3 mi. E of Redondo Pool) ..... Location.

Tests in Scattered Michigan Districts Eclipsing Interest in Porter Township Area Operations

By PAUL A. ELLIOTT
Staff Correspondent, Michigan Fields

MUSKEGON, Mich., Apr. 9. — Wildcat, semiwildcat and other areas "stole the show" from the big Porter Pool during the week, striking oil, gas and water in several important new developments. Even among the 15 new permits, wildcat and other areas nearly outstripped the Porter Pool which has been leading the State for many months.

Seven of ten new wells making oil, one gasser and three dry holes out of 13 wells are in areas other than Porter Township, Midland County. Three of these tests indicate the possibility of new oil or gas fields, although none had developed commercial production, or enough to call them the discovery wells of new pools.

Attracting greatest interest because of the possibility of a second oil pay in the Dundee limestone in the Broomfield gas pool was Pure Oil Co.'s No. 2 Willie, SW NE Section 4-14n-6w, Broomfield Township, Isabella County. Oil was first encountered in the Broomfield shallow gas pool about 2 feet in the Dundee. At 14 feet in the hole filled more than 300 feet and had an estimated flow of 250,000 feet of gas. From 28 to 35 feet in, however, water was encountered and drilling was suspended at 3,668 feet to plug back, shoot and probably treat with acid for possible commercial oil production.

Of 44 Gravity

Samples of oil from the Willie well were reported to be of higher grade than crude from any present producing pool in the State with a gravity of about 44 degrees, light and sweet in quality.

Although the discovery well drilled about three years ago on the Keeler-Mitchell lease in Section 10, Broomfield Township, was started as an oil test it was completed in the Michigan stray sand at about 1,400 feet when a flow of 8,000,000 feet of gas was encountered. Since then more than 30 gas tests, 25 successful, have been drilled in several sections of the township, bringing in an aggregate of about 80,000,000 feet, one of the two largest gas areas yet discovered in Michigan. It was the first Central Michigan area from which gas was marketed in large quantities, the Consumers Power Co. laying a 50-mile pipe line to Saginaw and Bay City and purchasing several million feet a day for nearly two years.

Although comparatively few Broomfield gas wells have been drilled in such a manner they could be carried to the Dundee, it is expected some of the smaller gas wells ranging from 500,000 feet and upward will be deepened in search of oil. A considerable amount of new drilling also is anticipated.

Tests drilled in Gratiot County on the southeast and in Osceola County to the northwest have struck shows of oil in the Dundee indicating possible extension of the Broomfield high in these directions but have not developed commercial production.

Gas in Ionia County

A flow of gas estimated at 250,000 to 500,000 feet a day was struck in Prairie Oil Development Co.'s No. 1 Mary Moses, NE NE Section 19-8n-5w, North Plains Township, Ionia County, in an entirely new prospective area. Gas was encountered at about 1,000 feet deep in this wildcat near the village of Muir drilled by a local syndicate headed by J. Lee Strachan, a Muir business man. It probably will be drilled deeper for oil.

The third important wildcat show was developed in Muskegon Oil Corp.'s No. 1 William Vandermade, SW SE Section 26-10n-15w, Egelston Township, Muskegon County, about 10 miles east and a little south of the original Muskegon Field. This well made 5 to 10 bbls. of oil daily from 6 feet of Dundee pay struck at 2,295-2,301 feet but was also pumping a large quantity of water entering the hole from below where it was plugged back from the Monroe before a shot in Dundee. It will be thoroughly tested as the most encouraging indication of a possible new Muskegon County pool since the development of the old Muskegon Field six years ago.

The largest new oil producer of the week, which added about 1,500 bbls. of new initial daily oil flow, was Pure Oil Co.'s No. 1 D. Allspaugh, NW NE NW Section 2-13n-2w, Jasper Township, Midland County, in the Jasper-Yost Pool. It made 635 bbls. during the first 24 hours drilled to a total depth of 3,433 feet as a Dundee producer.

Ogemaw County

Two significant new producers, one in the Dundee and the other in the upper Traverse, were completed in West Branch Township, Ogemaw County, 50 miles north of the Porter Pool. McClanahan Oil Co.'s No. 1 Ora Carroll, SW NW Section 29-22n-2e, West Branch, was estimated good for 125 bbls. a day as the fourth successful Dundee producer in the north field after acid treatment. Oil was encountered for 57 feet of pay to a depth of 2,730 feet, or 168 feet in the Dundee, without striking water. It will be placed on the pump.

Theodore Oil Co. also brought in its second upper Traverse well on the Ogemaw Country Club lease for an estimated 200 bbls. a day initial. Located SE SE SW Section 20-22n-2e, West Branch Township, it made 125 bbls. during the first hour and 10 to 25 bbls. thereafter. Upper Traverse limestone was topped at 1,752 feet and the hole drilled to 1,769 feet.

Wittmer Oil Co. completed its second well in a new Dundee oil producing area halfway between the Leaton and Vernon Pools. The new well is No. 1 E. R. Mogg, C SW SW Section 12-15n-4w, Isabella Township, Isabella County, and is good for about 50 bbls. a day natural.

Porter Township

Two new Dundee oil producers were completed in the Porter Township Pool, a third was drilled into the pay with indications of commercial production and a fourth was more than tripled in flow by acid treatment during the past week. Stork Oil Co.'s No. 4 Charles Baxter, NW NW NE Section 22-13n-1w, Porter-Midland, made about 280 bbls. a day topping the Dundee at 3,360 feet and drilling to 3,405 feet. Pure Oil Co.'s No. 1-B J. B. Rayner, SE SW NW Section 18, Porter, is rated at 75 bbls. initial at a total depth of 3,440 feet. Daugherty and Markey's No. 2 Mrs. F. Forbes, NW SW SW Section 22, Porter, topped Dundee at 3,380 feet, cased at 3,382 feet and had filled up about 1,500 feet with oil shortly after drilling into pay sands. It was to be deepened and acid treated.

Northern Oil & Gas Co.'s No. 2 Hathaway, NE NE NW Section 18, was increased from an initial of about 50 bbls. to 170 bbls. a day by acid treatment. Branigar, Giffert and Reasor's No. 1 Sias, SW NW SE Section 8-14n-2w, Greendale Township, Midland County, also was boosted from 50 to 125 bbls. a day by treatment.

The former Dixie Oil Co.'s No. 9 Fred Figge, NW SW Section 9-10n-16w, Muskegon Township, Muskegon County, was brought in as a 25 to 50-bbl. oil producer in the lower Traverse, deepened from an original upper Traverse oil well. New pay sands were encountered at 1,878-1,881 feet by the Muskegon Development Co. deepening the well with the Monroe gas sands as the objective for West Michigan Consumers Co. Three dusters also were completed, two in Midland County in the Mount Pleasant area and one in Lapeer County in southeastern Michigan wildcat location.

L. G. Thompson's No. 1 James Oliver, NE SE NE Section 18-14n-1w, Lee Township, Midland County, struck water at 3,657 feet and was dry and abandoned. S. S. Bankle's No. 1 R. Farnsworth, NE NE NE Section 15-13n-2w, Jasper Township, was dry at 3,560 feet.

George Henry Flynn Oil & Gas Corp.'s No. 1 Ezra Bremmer, NE NE SW Section 9-8n-9e, Oregon Township, Lapeer County, was dry in the Dundee as the second test drilled in the same section by the same interests. A show of about 70 feet of oil in the Dundee last November in Kehlet and Flynn's No. 1 Herbert Branick, Section 9, Oregon Township, at a depth of 2,335 feet encouraged the operators to drill a second well in this area about 100 miles southeast of Mount Pleasant production.

Continue Allowable

With the estimated open flow potential showing an increase of more than 10,000 bbls. from 115,673 bbls. as of March 1 to 126,461 bbls. as of April 1, the state proration committee announced the allowable of 5 per cent over the exemption of 100 bbls. per well will be continued at least for the first half of the month. A reduction in the minimum from 100 to 50 bbls. a well thereby allowing an increase in the percentage of proration was proposed at a meeting of the committee but not accepted. Several other suggestions for changes in taking potentials and determining proration schedules also were taken under advisement for possible future action.

Michigan crude oil potentials and runs for 11 fields compiled as of April 1 by

Three Good Producers in Kentucky Field; Only 3 Completions in Central Ohio

By GEORGE A. WHITNEY
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Apr. 9. — In the Lima Field, Wyandot County leads all the counties in work under way. No completions were reported, the only change being the starting of a well by Wyanco Oil in No. 4 Gotlieb Seiler farm, Section 34, Crane Township. There is one rig up and eight wells drilling. U. & M. Gas Co. is shut down at 1,250 feet. McPheron and others are also shut down at around 800 feet in No. 1 Catherine Smally farm, Section 3, same township. The test being drilled by Dempsey and others on the S. P. Hooper farm, Section 7, is still shut down. Jones & Coyle is drilling below 1,100 feet in No. 1 on Harry Bardon farm, Section 5, same township. Upper Sandusky Oil & Gas Co. is drilling below 1,200 feet in No. 5 on the N. and H. Saltsman farm, Section 28, same township. Cessna & Feasel are shut down at 1,437 feet in No. 1 Thomas Bowman farm, Section 15, Pitt Township, same county.

Considerable leasing is reported in the Tiffin Field of Seneca County, in advance of present production, which means that a few wells will be drilled. C. Burton Sage will probably do some testing work in Seneca County. There are four wells reported drilling: R. E. Greene's No. 3 T. C. and B. G. Shaull farm, Section 30, Liberty Township; J. H. Murphy's No. 1 Andrew Kimmitt farm, Section 20, same township, and in Hopewell Township J. L. Barrett is drilling No. 1 T. N. Einsel farm, Section 1, and Horton & Barnard are drilling No. 1 A. D. and M. M. Dondore farm, Section 4, same township.

CENTRAL OHIO

Although there are a large number of wells under way in the Central Ohio Field, there were but three completions reported. In Medina County, E. R. Edson Sons Co.'s No. 43 on the E. G. Miller farm, Lot 15, Chatham Township, reported an initial of 10 bbls. from the same county, F. E. Barnhardt and Berea sand. In Harrisville Township, others are drilling No. 5 on the W. P. White farm, Lot 17, and Hulse and others have made a location for No. 8 on the Desnoys Realty Co.'s property, Lot 78, Medina Township, same county.

In Guernsey County, Ohio Fuel Gas Co.'s No. 1-5,779 on the John Johnson farm, Section 20, Willis Township, is a gas well. East Ohio Gas Co. is drilling No. 1 Gadd-Little farm, Section 1, Wheeling Township, and E. C. Quillan and others are drilling No. 4 Quillan farm, Section 10, same township. M. J. Purdy is drilling No. 1 on the Alwin-Carter farm, Section 15, Millwood Township.

In Athens County, Ohio Fuel Gas Co. drilled in a gas well in No. 1-5,786 on the D. E. Bolin farm, in Fractional Section 30, Lodi Township. Goddard & Blosser are drilling deeper No. 3 on the W. E. Henthorn farm, Section 17, Berne Township, same county.

In Lorain County, Wittmer Oil & Gas Co. is drilling on the Thomas Gammon farm, Lot 97, Grafton Township. Ohio Fuel Gas Co. has a rig for No. 1 John Tomes farm, Lot 67, Columbia Township, same county. McMillan and others are shut down at 300 feet on the Merl Penfound farm, Lot 9, Carlisle Township.

In Wayne County, Hulse and others are drilling on the F. P. Rice farm, Section 19, Chester Township. City Natural Gas Works is starting No. 1 on the Martz & Moyer farm, Section 14, Pleasants Township, Fairfield County.

Upham Gas Co. has a rig for No. 2 on the John C. Armstrong farm, Section 7, Brown Township, Knox County. Preston Oil Co. made a location for No.

(Continued on Page 83)

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O. H. White and A. J. Weideman, state umpires, follow:

DAILY ESTIMATES FOR APRIL 1, 1934

Pool—	Wells	Potential	Runs
Porter	154	112,558	19,261
Yost	12	2,808	825
Greendale	324	4,572	4,572
Vernon	43	4,003	2,564
Leaton	23	709	709
Muskegon	174	362	362
Oceana	13	345	345
Ogemaw	9	949	359
Saginaw	134	134	134
Montcalm	1	73	73
Cass	1	3	3
State total	888	126,516	29,207

The numbers of oil producers was increased from 856 as of March 1 to 88 as of April 1. The new proration schedule is expected to keep production well within the newly increased Federal allowable of 31,300 bbls. a day.

Nearing Completion

Pure Oil Co.'s No. 1 Everett Kleinhans, SW NW NE Section 20-13n-1w, Porter Township, Midland County, and its No. 4-A John Miller, SE NW SW Section 17, same township, were drilling into the Dundee. Pure's No. 1 A. J. Neitzke, NW NW SW Section 21, Porter, Bradner-Vaughan Development Co.'s No. 1 Brennan, NW SW SE Section 27, a mile south extension test, and Fred J. Turner and others' No. 1 George Root, Section 21, were drilling at more than 3,000 feet and scheduled for early completion.

Five drilling wells in Vernon Township, Isabella County, were near completion with one shut down after striking a show of oil and gas in the Dundee. Templemayr & Tope's No. 3 Russell, NW SW NW Section 22-16n-4w, topped pay at 3,830 feet. Same operator's No. 2 Woods, SW SW NW Section 22, was still shut down on top of the Dundee. Morris Van Keuren's No. 1 Bowman heirs, NE NE NW Section 27, has been drilled to more than 3,550 feet and is expected to drill in within a few days. Stoddard and Darke's No. 1 E. Brooks, SW SW SW Section 14, an extension test, was drilling at more than 3,440 feet while Mohawk Oil Development Co.'s No. 1 James Duncan, NE SW SW Section 9, another Vernon semiwildcat, is more than 3,000 feet deep. C. A. Weller's No. 1 Battle estate, SW SW NE Section 36, a Vernon Township test for the shallow Michigan gas, also is nearing completion.

T. F. Caldwell's No. 1 E. Hart, NW SW NE Section 19-22n-2e, West Branch Township, Ogemaw County, was nearly ready to drill into the upper Traverse formation after being cased. Two other Ogemaw County tests were drilling below the Traverse on the way to the Dundee sand with new hopes for production in that strata in view of recent favorable Dundee developments. They are Pure Oil Co.'s No. 1 Hart, NE NW NE Section 34, West Branch Township, which had a show of oil and water in the upper Traverse at 1,725 feet and McClanahan Oil Co.'s No. 1 A. O. Guilford, NE NE NW Section 29, also West Branch Township.

McClanahan company has re-treated its No. 1 Frank and Joseph Heintz, NW NW NW Section 24-22n-1e, Ogemaw Township, first Ogemaw County test to indicate commercial production several weeks ago when it was estimated good for 40 bbls. a day. Same company last week started its No. 1 F. E. Boutell, SW SW SW Section 5 in the center of a new 2,500-acre block of Ogemaw Township, 3 miles northwest of the Heintz well.

J. E. Harding's No. 1 William Todd, NE NE NE Section 7-14n-6w, Broomfield Township, Isabella County, an extension test in the Broomfield gas pool, is expected to drill into the Michigan stray sand soon and it is more than 1,300 feet deep.

Wildcat Tests

Two wildcats in Midland County were drilling in the Traverse and attracting considerable interest. Sun Oil Co.'s No. 1 George Piegols, C SW SW Section 9-15n-2e, Larkin Township, and Lawson Oil & Gas Co.'s No. 1 Atkinson, C NE SW Section 21, Lincoln Township, were at about 3,200 feet.

Drilling of an old test on a vacant section of a cemetery plot in Vernon Township, Isabella County, has been stopped by a temporary injunction obtained by 150 farmers. The permit was issued to John Vale and J. D. Wilson for No. 1 Vernon Township board, SW SW SW Section 23-16n-4w.

Oceana Field

One well is nearing completion in the upper Traverse and another is drilling to the Dundee in the Oceana Field of western Michigan. John B. Northcott's

(Continued on Page 93)

Fair Completion in Coshocton County; Three Oil Producers in West Virginia

By STAFF CORRESPONDENT

PITTSBURGH, Pa., Apr. 9.—Runs from the field increased in all districts of the lower eastern fields during the past month, but are still several thousand barrels below the present refinery demand. The refinery demand for Pennsylvania Grade crude continues strong and it is expected it will increase since the allowable production of gasoline has been increased.

Producers dominated the completions in the East during the week, the total being nine oil wells with an initial daily average of 199 bbls. and seven gassers. There were no dry holes. The largest well was in Southeast Ohio.

SOUTHEAST OHIO

Pure Oil Co. completed a very fair second test in Coshocton County. In Perry Township, this company drilled No. 2 on the Ray Hays farm in the Clinton sand at a depth of 3,220 feet and it produced 34 bbls. the first 19 hours natural. After shot, it produced 125 bbls. the first day.

In Columbiana County there were two completions. In the southwest quarter of Section 19, Knox Township, Schaler Oil & Gas Co. completed a test on the Calvin Powell farm in the Berea grit at 730 feet. It produced 1 bbl. the first day natural which was doubled after shot. In the northeast quarter of Section 32, same township, Abrams & Co. completed a test on the S. D. Sanor farm in the Berea grit at 735 feet. It will make a 1-bbl. pumper after shot.

In Licking County, L. W. Rutledge, trustee, completed a test on the Walter Hays farm in Section 17, Perry Township. It was drilled in the Berea sand at about 900 feet and is showing for 8 bbls. a day after shot. It will probably make a 2-bbl. pumper.

In Morgan County, at Joetown in Section 5, Malta Township, J. F. Meiswanger and others completed No. 27 on the J. R. Porter farm in the First Cow Run sand at 240 feet. It is starting off as a 4-bbl. pumper.

WEST VIRGINIA

Three producers were completed in West Virginia, the largest in Lost Run Pool, Clay district, Ritchie County. C. F. Vincent & Co. completed No. 5 on the John T. and Ella B. Fox farm along the northern end of the Injun sand streak at a depth of 1,812 feet in that formation. It is showing for about 40 bbls. a day, natural.

In Boone County Pure Oil Co. com-

The ENGINEER

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I am responsible for a great number of things which include—straight hole, the setting of pipe, torque and strain on equipment, the responsibility of determining the correct drilling size in which to set the standard sizes of casing, also selecting material for its safety, quality and workmanship. Therefore, my choice has been the Sievers Reamer. It has also proven invaluable as a Mud Mixer, inasmuch as its cutters are on an angle it fans, breaks, and cuts up chunks of formation and mixes it with the mud, equalizing our mud to an even degree. The Sievers Reamer cutters do not flatten, nor do the pins and parts wear to any great extent, which naturally insures us of a maximum value per dollar invested.

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pleted two producers. In Sherman district this company completed No. 64 on the Federal Coal Co. lease in the Berea sand at 2,749 feet. After shot it is showing for a 5-bbl. pumper. In the same district but No. 259 on its Williams Coal Co. tract, this company completed a well at 3,251 feet, also the Berea sand, and it is showing for 10 bbls. a day after shot.

Reconditioning work is still in progress. In DeKalb district, Gilmer County, Philadelphia Oil Co. cleaned out and shot No. 4 on the Joab Critz and others lower tract and increased production from 2 to 4 bbls. a day. In the same section South Penn Oil Co. reconditioned No. 5 on the R. J. Ellis lease and increased production from 1 to 5 bbls. a day.

Gas Wells

There were several very fair gas wells completed in West Virginia. In Boone County, Pure Oil Co. completed No. 63 on the Federal Coal Co. tract in Sherman district in the Berea sand at a depth of 2,630 feet. It is a gas well gauging at 1,360,000 feet a day.

In Cabell County, Guyan Valley Gas Co. completed a test on the C.&O.R.R. Co. property in Barboursville district. It is a Berea sand well, depth 2,826 feet, and is showing for nearly 1,500,000 feet a day.

In Kanawha County, Columbian Carbon Co. completed No. 12 on the Queen Land Co.'s tract in Big Sandy district in the Keener sand at 1,958 feet. It is rated at about 200,000 feet a day.

In Ritchie County, on the waters of Leatherbark Creek in Murphy district, Clem Morris completed a test on the F. B. Strothers farm in the Injun sand at a depth of 1,938 feet. It is a very light gas well and had no showing of oil in any of the formations.

In Roane County, C. C. Cleavenger completed No. 3 on the Mary L. Taylor farm in Geary district in the Injun sand at 1,905 feet. It is a gas well gauging at over 250,000 feet a day. In Spencer district, on the waters of Calf Pen Run of Laurel Creek, George E. Smith and others completed a test on the L. A. Short farm in the Salt sand and it will make a small gas well.

Drilling in West Virginia

In the Lost Run Pool, Clay district, Ritchie County, there is only one well drilling at present. Ralph Roberts and others are drilling on top of the Injun sand in No. 3 on the Sada McGinnis farm at 1,812 feet. This well is an important test on the Injun sand streak as it is northeast of the most northern producer and east of the dry hole in direct line with production. It will prove if that formation has turned in that direction. Richards Farm Oil Co. has a rig standing on the Z. Daugherty and Mary Toothman farm, and Robert E. Elder and others have a location on the J. W. Leonard farm.

In other parts of Ritchie County there is new work. On Hughes River in Grant district, Queen Oil & Gas Co. has set a machine for No. 3 on the Sarah McKinney farm. In Clay district, Locke-Simonton and others have moved a drilling machine on the William J. Wince farm about 1 mile north of Pike. In the same district, J. Corbit Smith, G. A. Smith and others have moved in a machine on the Lewis Hanlon farm. In Murphy district, L. U. and L. E. McClure have reached 1,500 feet on the J. A. Gregg farm. In Grant district, Dr. Ira Conley has resumed drilling on the T. E. and A. F. Dye farm. Burgy & Co. is drilling at 600 feet on the Lillie Husher farm and the Beech Run Oil Co. reached 1,640 feet on the Z. E. Neely farm and shut down.

In Cabell County the West Virginia Gas Corp. is building a rig on the George Pruett farm in McComas district. In this district the Empire State Gas Co. lost the tools in the hole at 2,400 feet on the L. and L. Adkins farm and at present are drilling by.

In Calhoun County, Richter Oil Co. built a rig for No. 4 on the Z. O. Cooper farm in Sheridan district. In Sherman district, F. F. McIntosh has a rig standing for No. 5 on the O. S. Bennett farm. In this district, C. B. Lewis and others are drilling at 700 feet on the Virgil Hickman farm.

In Gilmer County, C. A. Jarvis and others are drilling on top of the Injun sand on the Susan A. Gainer farm on Trace Fork, DeKalb district. There are two rigs standing in this district, Starcher and Richards on the O. C. McQuain heirs farm, a test, and A. E. Ellis and others on the Webster and Ware lease No. 3.

In Roane County, Guy Boggess and others have started drilling on the William Stine farm in Spencer district and are down 150 feet. In Curtis district the Henderson Oil Co. is drilling at 785 feet in a second test on the F. H. Bee farm and holds a location on the George L. Ball farm. Reedy Oil & Gas Co. has reached 1,310 feet on the W. R. Williams farm. In Smithfield district, the United Fuel Gas Co. has started drilling No. 4,385 on the Frank Looney farm and is down 400 feet. This company has part of the material on the ground for No. 4,387 on the W. R. Wright farm.

In Marshall County, Manufacturers Light & Heat Co. is down 1,905 feet in No. 3,474 on the August Wend farm in Liberty district and 430 feet in No. 3,512 on the James Reid farm, same district. This company has the rig timbers on the ground for No. 3,513 on the J. C. Clouster farm, same district.

In Doddridge County Hope Construction & Refining Co. has reached 1,140 feet in No. 3,568 on the Harvey Smith farm in West Union district.

SOUTHWEST PENNSYLVANIA

Two wells were completed in Southwest Pennsylvania during the week, one a producer. In Cecil Township, Washington County, Amon and others completed a test on the Thomassy lot in the Fifth sand at a depth of 2,565 feet and it is showing for a 4-bbl. pumper.

In South Franklin Township, Washington County, E. H. and J. B. Tague completed No. 9 on the Adaline D. McKennan estate in the Salt sand at 1,220 feet and it is a gas well which came in at 400,000 feet a day. There was a showing of about 4 bbls. a day in the Dunkard and which was struck at 903 feet.

In Amwell Township, Washington County, Manufacturers Light & Heat Co. has made a second location on the Hulda Jenkins farm and about 1,100 feet southwest of the fair well completed on the Fred Baumberger farm by Carnegie Natural Gas Co. This well, reported as a 15-bbl. well, has made a much better showing and will be shot. In this township, Raymond Orrill and others reached 3,000 feet in No. 3 on the G. L. Walker farm, through the Fifth sand, and the well is being plugged back to the Nineveh 30-foot sand which had a fair showing of oil. The test of Carnegie Natural Gas Co. on the C. W. Dunn farm is standing at a total depth of 2,959½ feet. The top of the Fifth sand was at 2,930 feet and there is a very small showing of oil.

In East Findley Township, Washington County, Levier and others are spudding in on the James Marshall farm. In Morris Township, James McCracken & Co. have reached 1,480 feet on the H. B. Saunders farm. The Pittsburgh Coal was at 933 feet.

In Greene County, Fred Garrison has resumed drilling on the G. W. Everly farm in Dunkard Township and the present depth is 650 feet. The top of the Dunkard sand was at 640 feet. On Meadow Run, Conklin, Phillips and others are drilling at 576 feet on the James McClure farm. The Pittsburgh Coal was at 560 feet.

In Slippery Rock Township, Butler County, the important test of James H. Duff and others on the Munnell farm near Harlansburg drilled through the Oriskany sand and found it dry. The top of that formation was at 4,540 feet and extended 12 feet. There was a smell of oil at 4,540 feet. The depth is now 4,670 feet and it is proposed to drill down to the Medina and possibly the Trenton sand. The elevation of the derrick floor is 1,180 feet.

Central West Fields

(Continued from Page 81)

3-1,540. Pure Oil Co. is reported drilling at 3,190 feet in No. 1 Roy Hays farm, Section 5, Perry Township, Coshocton County. In the same county, Preston Oil Co. is drilling around 3,260 feet in No. 2-1,536 on the R. L. Cochran farm, in the three-quarter Section, Newcastle Township, with a showing of oil, and still drilling. Same company made a location for No. 3-1,540 on the D. S. Snyder farm, same section.

Licking County

In Licking County, Preston Oil Co. is drilling No. 1-1,440 on the Frank Beckford farm, Section 18, Fallsburg Township. In Muskingum County, the Pure Oil Co. is drilling No. 1 P. A. Donaldson farm, also No. 1 Oscar Mieksell farm, both in Section 7, Jackson Township. In Brush Creek Township, same county, Hopewell Oil & Gas Co. is drilling below 1,450 feet in No. 2 W. L. Helriggle farm, Section 9, same township.

In Athens County, Goddard & Blosser are drilling deeper No. 3 W. E. Henthorn farm, Section 17, Berne Township.

In Stark County, Ohio Fuel Gas Co. is drilling No. 1 Rachael Beltz farm, Section 7, Jackson Township. East Ohio Gas Co. has a rig on the William Green farm, Section 20, Plain Township, same county. Several other wells are nearing the pay sand in this county. Brendel Producing Co. is drilling around 4,400 feet, in No. 3 on the Canton Suburban Realty Co.'s land, in Section 20, Plain Township. Same company's No. 2 Charles Warstler farm, Section 14, is drilling below 2,500 feet, and No. 2 on the I. and E. Markley farm, Section 9, is below 4,000 feet. Pfeiffer and others are drilling below 2,800 feet in No. 1 on the A. V. Pontius farm, Section 16, same township.

In Holmes County East Ohio Gas Co. is drilling below 3,000 feet in No. 7 S. H. Sterling farm, Section 27, Monroe Township. Kenova Oil & Gas Co. is drilling below 2,500 feet in No. 3 Mary A. Beeler farm, Section 20, same township and county.

In Belmont County, E. D. Crouch and others are drilling on the Boyd-Majors farm. Section 21, Kirkwood Township. H. W. Bowers made a location on the B. and C. Mink farm, Section 28, Addison Township, same county.

Oxford Oil & Gas Co. has a rig in for No. 6 on the Thomas B. and Rosie Shearer farm, in Washington Township, Tuscarawas County.

KENTUCKY

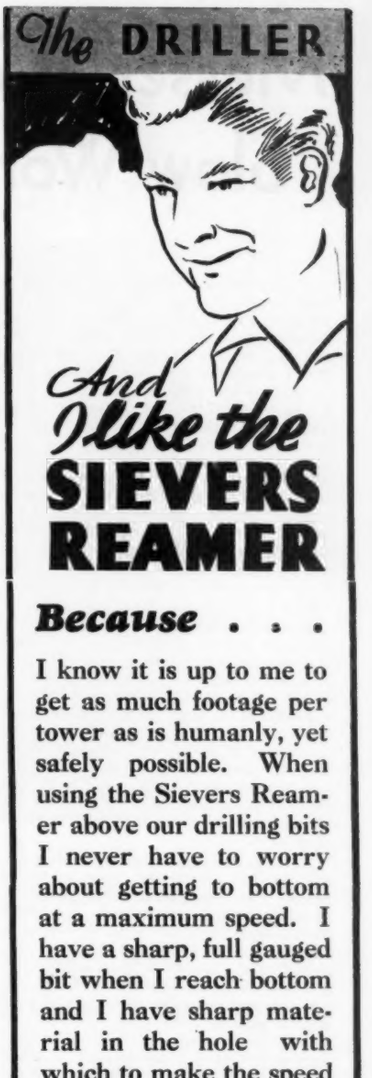
Four completions were reported from the Kentucky Fields and three of them are excellent producers and should bring about a more active development. In McLean County, Miller, Dameron and others' No. 9 on the G. F. Dunn 100 acres produced an initial of 240 bbls. Same company is drilling Nos. 9, 10 and 11 on the L. E. Morris farm, same area. W. W. Dameron's No. 7 L. E. Morris farm produced an initial of 200 bbls. In the same field, Ohio Oil Co.'s No. 9 on the G. B. McManama No. 2 farm, same county, produced an initial of 115 bbls. First Owensboro Bank & Trust Co. is drilling No. 3 on the Will Ashton farm, same county.

In Daviess County, Daley and Daley are drilling on the E. Mitchell farm.

In Muhlenberg County, Ohio Oil Co. is drilling No. 1 on the Frank Loche farm in the Greenville Field. McLean Development Co. is drilling No. 4 on the McNanama farm, and Mayer and others are drilling No. 14 R. O. Kennedy farm, same field. No completions were reported from Ohio County, or from Daviess, Ohio or Hancock Counties.

In Allen County, in the Scottsville Field, J. Willson's No. 5 on W. L. Motley No. 2 farm, produced but 1 bbl. at from 381 feet. In the Mount Ariel area of the same county, Ben Ruble is drilling on the G. M. Welch farm.

No completions were reported from the Indiana and Illinois Field for the week.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Messer Well Opened After Long Shut Down; Slow Work on Recent Oklahoma Discoveries

By JAMES McINTYRE

Wildcat tests in Oklahoma continue to find showings of oil. A Lincoln County wildcat cored a sand showing oil and gas, believed to be the Bartlesville sand. The test is Anderson & Kerr and Atkinson's No. 1 Huckaby, SW cor. Section 9-15-2, in the western part of the county. Sand found at 4,687-90 feet showed both oil and gas. Another core was to be taken and if it shows sufficient oil pipe will be set and cemented prior to testing. This wildcat is being drilled on a block of 440 acres. Companies owning close-in acreage include, Gypsy Oil Co., Shell Petroleum Corp., Slick-Urschel, Inc., Texas Co., Selby Oil & Gas Co., Sinclair Prairie Oil Co., Stanolind Oil & Gas Co., Twin State Oil Co., and E. W. Marland, Inc.

Salt water has apparently drowned the hopes of finding a producing well near Navina, in southwestern Logan County at the Barnsdall Oil Co.'s No. 1 Seyller, C NE SE Section 12-15-4w, which found showings of oil and gas in dolomite at 6,380-6,551 feet. The test was drilled to the second Wilcox sand at a total depth of 6,621 feet and found salt water. It was plugged back 70 feet and shot, and while cleaning out 1,100 feet of salt water was found in the hole with a small show of oil.

At Langston, Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Fouts, NW cor. NE Section 14-17-1w, which has been shut in until pipe lines were completed to the well, will soon be given a shot and completed. The well was drilled to the second Wilcox sand at 5,240 feet where it found 1,200 feet of water and then plugged back to the first Wilcox sand at 5,097-5,102 feet where it showed for a producer. On its first production test after plugging back, it made 147 bbls. Before the hole was drilled deeper it made 630 bbls. of oil, naturally, in 24 hours.

Open Messer Discovery

Mid-Kansas Oil & Gas Co.'s No. 1 Messer, SW cor. Section 32-14-3w, Oklahoma County, in the Edmond Field, was opened for a production test early in the week making 826 bbls. of oil the first 24 hours, settling to 420 bbls. daily, flowing by heads. This discovery well was drilled into the oil sand late in 1930 and tested in January, 1931, and then shut in until last Monday morning. It is producing from the Wilcox sand at 6,696-6,771 feet. The same company has staked a location for the west offset, No. 1 Dahl, in the SE cor. Section 31-14-3w.

Working on Binger Deep Test

The wildcat test near Binger, in northern Caddo County, continued to bail during the week. The well, Denver Producing & Refining Co.'s No. 1 A-dah-noe, NW cor. SW SW Section 34-10-10w, has been making short-time flows when opened during the last week, and the owners announced on Saturday that two 1,000-bbl. storage tanks will be constructed at the well and locations for two additional tanks will be cleared. The test is producing from a sand bottomed at 9,982 feet, and has made considerable oil, mud and water since it has been cleaning out, but refuses to flow naturally except for short periods.

Almost daily it makes from one to three heads of fluid and then bailing is resumed. The crew has been running the bailer to a depth of 5,500 to 6,000 feet from the surface and continues to get considerable heavy mud.

The owners believe the oil has been increasing in the hole. The producing horizon is porous and it will take considerable time to clean out the mud and water which was forced into the sand by the pressure of the loaded hole prior to the time the pipe was cemented about four weeks ago.

Search for a deep producing horizon in the Cement Field in Caddo County proved disappointing when the Mid-Kansas Oil & Gas Co.'s No. 1 Ida Yule, SE cor. SW Section 1-5-9w, on the northeast edge of the field, bailed to the bottom and found only a small show of oil and gas. It is to be plugged back 70 feet and shot to test another showing. The 6-inch casing was cemented at 5,020 feet.

Production in the Cement Field is found around 2,350 feet and geologists believed that deeper production can be obtained. The Mid-Kansas Oil & Gas Co. and W. R. Ramsey drilled a well to 10,079 feet on the west side of the field but it was abandoned in the Pennsylvanian formation. The No. 1 Ida Yule found showings at 4,325-4,400 feet in broken sand and in sand at 4,735-55 feet and a saturated core at 5,020-61 feet.

Keokuk Falls Area

Carter Oil Co.'s No. 1 Jarvis, C E half NE SW Section 18-10-6, in northern Seminole County, was swabbing 25 bbls. of 32.8 gravity oil an hour from the Wilcox sand at 4,588-96 feet. It is expected to be a few days before a gauge can be made as tankage is being erected at the well. This is the first Wilcox sand well in the district and it opens a new producing area in northern Seminole County.

Paoli District

In the Paoli area of Garvin County, Anderson & Kerr and others' No. 1 Rodke, NW cor. NE NW Section 21-4-1w, found water filling up in the hole after drilling the cement plugs at a total depth of 4,953 feet. It has been cleaning out and has shown broken sand and shale and some black oil. The casing was set in this wildcat test at 4,895 feet in the Simpson formation.

Phillips Petroleum Co.'s No. 1 Dennis, SE cor. NE Section 9-4-1, a wildcat in Garvin County, was drilling out the cement plugs after plugging back at 4,164 feet.

Wildcat Operations in Oklahoma

Week Ending April 7

Northern Oklahoma

Company, farm and location—	Remarks:
ATOKA COUNTY	
Malernee et al's No. 1 Greenville, N. B., NW SW Sec. 35-2s-13e	S.D. 550 ft.
ALFALFA COUNTY	
Acre et al's No. 1 Acre, C SW NE Sec. 14-24-11w	T.D. 6,460 ft.; making a small flow of oil once a week.
BECKHAM COUNTY	
West Oak Gas Co. et al's No. 1 Powell, NW SW Sec. 11-9-25w	T.D. 3,345 ft.; run 8-in. csg.; est. 1,500,000 ft. of gas; C.O.
CADDO COUNTY	
Denver Prod. & Ref. Co.'s No. 1 Noe, NW SW SW Sec. 34-10-10w	Set csg. 9,922 ft.; bailed and flowed some gas, oil and wtr.
COAL COUNTY	
Moore & Deaner's No. 1 Edward, NW NE SE Sec. 27-2-8	Drlg. 2,940 ft.
Westheimer & Daube's No. 1 Lowman, C NE SE Sec. 18-2-8	Drlg. 3,580 ft.
CREEK COUNTY	
McBride et al's No. 1-A Wickham, NE NW SE Sec. 3-15-7	Drlg. 4,050 ft.
DEWEY COUNTY	
Continental Oil Co.'s No. 1 Beaumer, SW NE Sec. 8-19-20w	T.D. 4,340 ft.; abnd.; wtr.
GARFIELD COUNTY	
Indian Terr. Illum. Oil Co.'s No. 1 Clark, C NW NW Sec. 34-21-6w	Fishing 6,520 ft.
Argo O. & G. Co.'s No. 1 Dickman, SW cor. SE Sec. 13-24-1w	Drlg. 2,710 ft.
Ross Cummings et al's No. 1 Gage, SE NW Sec. 27-22-3w	Rigging up.
GARVIN COUNTY	
Anderson & Kerr's No. 1 Rodke, NW NE NW Sec. 21-4-1w	T.D. 4,955 ft.; drlg. cmt. plugs.
Carter Oil Co. et al's No. 1 Hanner, SW NE NW Sec. 24-5-1w	Drlg. 2,120 ft.
Denver P. & R.'s No. 1 Newburn, C SE SW Sec. 22-5-1e	Location.
Phillips Pet. Co.'s No. 1 Dennis, SE NE Sec. 9-4-1e	T.D. 4,670 ft.; P.B. to 4,190 ft.; drlg. cmt. plugs.
HUGHES COUNTY	
Dickison et al's No. 1 Webster, NW NE Sec. 22-10-10	Rig on ground.
J. B. Hill's No. 1-A Perkins, C W½ SW SW Sec. 7-5-9	Drlg. 930 ft.
Birk-Kan's No. 1 Gardner, NE NW Sec. 22-6-9	Moving in tools.
Olympic Oil Co.'s No. 1 McClassen, SE NW NW Sec. 12-9-8	T.D. 600 ft.; lost tools; S.D.
Scruggs et al's No. 1 Black, NE Sec. 13-9-10	T.D. 3,125 ft.; U.R. 8-in. csg.
KAY COUNTY	
E. D. Buck's No. 1 Bush, C NE NE Sec. 25-28-4	Showing gas 480-88 ft.
Argo O. & G. Co.'s No. 1 Freese, SW NE NW Sec. 30-25-1w	Location.
LINCOLN COUNTY	
Anderson & Kerr's No. 1 Huckabee, SW cor. Sec. 9-15-2	Drlg. 4,245 ft.
Harvey Newman Oil Co.'s No. 1 Rueb, C NW NE Sec. 23-15-5	Cellar
LOGAN COUNTY	
Anderson & Kerr's No. 1-A Hull, 455 ft. S, 330 ft. W of E cor. Sec. 11-18-4w	Sand 4,775-4,812 ft.; flowed 287 bbls. in 24 hrs.
W. N. Anthony's No. 1 Fruin, SE SW Sec. 4-16-1	Rig.
Amerada and Stanolind's No. 1 Fouts, NW NE Sec. 14-17-1w	Wilcox sand 5,098-5,102 ft.; flowed 650 bbls. in 24 hrs.; second Wilcox 5,240-46 ft.; H.F.W.; plugged back to first Wilcox; swabbed 140 bbls.
Barnsdall Oil Co. et al's No. 1 Seyller, NE SE Sec. 12-15-4w	Wilcox sand 6,590-6,621 ft.; wtr.; P.B. to 6,589 ft.
Jadeka Dev. Co.'s No. 1 Frakes, C SW NE SW Sec. 16-15-6w	S.D. 2,531 ft.
McINTOSH COUNTY	
McGirl & Sherry's No. 1 Unallotted, SW cor. Sec. 17-10-14	Drlg. 300 ft.
NOBLE COUNTY	
Continental Oil Co. et al's No. 1 Bennett, SE NW Sec. 19-26-1w	Moving in material.

(Continued on Page 105)

Oklahoma Production

Estimated daily average production in the week ending April 6 and the preceding week was as follows:

Pool—	Apr. 6	Mar. 31
Allen	9,115	9,020
Bristow-Slick	10,250	10,400
Cushing-Shamrock	13,500	13,500
Chandler district	6,000	6,500
Healdton	9,250	9,200
Hewitt	5,150	5,150
Burbank	11,000	14,500
Balance of Osage	23,000	23,000
Lucien	6,710	6,385
Logan County	2,475	3,010
Bowlegs	8,035	9,560
Carr City	4,265	5,305
Earlsboro	6,710	9,050
East Earlsboro	9,026	10,250
South Earlsboro	1,165	1,425
Little River	9,810	13,260
East Little River	580	720
Seminole	8,815	11,145
East Seminole	1,010	930
Searight	2,355	2,175
Maud	1,240	1,355
Mission	3,880	3,580
St. Louis-Pearson	17,505	20,305
Cromwell	4,700	4,700
Oklahoma City	166,020	146,940
Tatums	6,940	7,455
Sholem-Alechem	4,400	4,450
Duncan	4,425	4,450
Tonkawa-Garber-Thomas	6,750	6,750
Fish	2,850	2,820
Konawa	2,195	2,390
Gray	2,785	2,970
Graham	3,650	3,600
Holdenville	3,860	3,785
Wewoka	5,000	4,750
Yale-Jennings	5,000	5,000
Other fields	71,082	71,690
Total	460,505	461,475

Osage County

Midco Oil Co. completed its No. 1, SE cor. NW Section 10-25-6, South Burbank Field, Osage County, where the allowable production is 200 bbls. per day per well, when the well flowed 1,200 bbls. the first 24 hours from the Burbank sand at 2,810-39 feet.

Carter Oil Co. and others' No. 2, SW cor. SE Section 10-25-6, was completed for 1,009 bbls. a day from the Burbank sand at 2,836-80 feet.

Champlin Refining Co.'s No. 4 Kennedy, SW cor. SE Section 16-24-7, Naval Reserve Field, made 321 bbls. the first 18 hours after a shot in sand at 2,612-63 feet. Same company's No. 1, SE cor. NW Section 16-24-7, was given a shot in the Bartlesville sand at 2,620-2,704 feet and flowed 214 bbls. of oil in 16 hours. Same company's No. 3, SE cor. NE NW Section 16-24-7, was rigging up.

Lewis Production Co. and Continental Oil Co.'s No. 4, 806 feet north and 300 feet west of the SE cor. SW Section 16-24-7, found a showing of oil in the Bartlesville sand at 2,617-65 feet. It will be shot.

Lewis Production Co. and Kasishke's No. 9, SW cor. NW Section 16-24-7, was spudding.

Continental Oil Co. and others' No. 6, SE cor. SW Section 15-24-8 (twin), was abandoned at a total depth of 457 feet.

Bay Oil Co. and others' No. 1, NE cor. SE Section 3-23-7, was also completed as a dry hole at a total depth of 2,723 feet in chat after finding water.

Reva Oil & Gas Co.'s No. 1, 728 feet north and 250 feet west of SE cor. Section 30-28-11, was spudding.

Skelly Oil Co.'s No. 1 Ducotey, NE cor. SW Section 3-25-6, flowed 3,505 bbls. of oil in 24 hours from the Burbank sand at 2,700-78 feet, total depth 2,779 feet.

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Commercial Department

OKLAHOMA CITY, OKLAHOMA

The gas was estimated at 7,500,000 feet a day.

Kasishke and others' No. 4, NW cor. NE SW Section 15-25-6, was rigging.

Phillips Petroleum Co. was rigging up at No. 5, SW cor. SE NW Section 15-25-6.

J. E. Morrison has made a location for No. 2, 800 feet north and 200 feet west of SE cor. Section 35-25-11.

Phillips Petroleum Co. was rigging up to drill deeper at an old well, No. 16, NW cor. SE SE Section 21-25-12. The old total depth was 1,728 feet.

Sinclair Prairie Oil Co.'s No. 1, SE cor. Section 2-24-6, was a cellar.

Lewis Production Co.'s No. 2, NE cor. NW Section 21-24-7, was showing oil in the Bartlesville sand at 2,650-85 feet. It will be shot. Same company's No. 3, SE cor. NE NW Section 21-24-7, and No. 4, NE cor. SE NW Section 21-24-7, were building rigs.

Kasishke & Higgins' No. 3, 1,320 feet south and 300 feet west of the NE cor. NW Section 24-24-7, was rig.

E. O. Platter's No. 3, SW cor. NE Section 30-22-9, is an old well rigging up to drill deeper. The old total depth is 518 feet.

Kay County

E. D. Buck's shallow test for gas was completed for 500,000 feet of gas a day from the sand at 480-88 feet. It is No. 1-A Bush, C NE NE Section 25-28-4, Kay County.

Garfield County

Sinclair Prairie Oil Co.'s No. 17 Windler, NE cor. NW SE Section 25-22-4w, was completed and put on the pump making 15 bbls. daily from sand at 1,130-50 feet.

Noble County

In the Lucien Pool, Noble County, one well was abandoned and a number of near completions were making oil from the Wilcox sand. The Shell Petroleum Corp. and others' No. 2 Wolfe, C NW NW Section 17-20-2w, Noble County, was drilled to a total depth of 5,355 feet, and on a production test made 30 bbls. of oil and 600 bbls. of water. It was plugged back to test the first Wilcox sand at 5,167-99 feet and after a swabbing test it made only 5 bbls. of oil and was abandoned. Same companies' No. 3 Magney, C NE SW Section 17-20-2w, flowed 240 bbls. of oil after a shot in sand at 5,148-58 feet and at 5,225-33 feet. Same companies' No. 1 Boley, "B," C SE NE Section 18-20-2w, swabbed and flowed 235 bbls. from sand at 5,210 feet.

Carter Oil Co. and others' No. 2 Weber, C SE SW Section 20-20-2w, flowed 3,225 feet in 24 hours from Wilcox sand at 5,016-99 feet.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 2 Shonwald, C NE SE Section 20-20-2w, was estimated at 120 bbls. a day while drilling deeper in the Wilcox sand at 5,158 feet. The top of the first Wilcox sand was 5,054 feet and the second was 5,153 feet.

Skelly Oil Co.'s No. 1 Long, C NW NW Section 28-20-2w, found the first sand at 5,027-81 feet and was drilling in the second sand at 5,143 feet. It was estimated to be making 150 bbls. a day.

Carter Oil Co.'s No. 2 Tate, C SE NW Section 29-20-2w, was a location.

Magnolia Petroleum Co.'s No. 1 Smith, C NE SW Section 29-20-2w, was a rig building.

The Continental Oil Co. and others' No. 1 Bennett, SE cor. NW Section 19-20-1w, a wildcat community test, was a rig building.

Dry Hole in Dewey County

The only test drilling in Dewey County, Continental Oil Co.'s No. 1 Beumer, C SW NE Section 8-19-20w, found water in lime at 4,340 feet and was abandoned.

Creek County

In the Olive Pool, in Creek County, C. W. Titus' No. 2 Casey, SW cor. SE SW Section 3-17-8, was cleaning out after a shot and was estimated at 90 bbls. a day from sand at 1,308-36 feet. Same company's No. 3 Casey, was showing 65 bbls. a day after a shot in Layton sand at 1,278-1,306 feet. New operations in the pool include J. E. Crosbie's No. 1 Deer, SE cor. NW NW Section 22-18-8, a rig; L. B. Jackson's No. 9 Wills, C SE NW Section 26-18-8, drilling at 300 feet; Merritt and others' No. 6 Brown, SE cor. SW NE Section 27-18-8, drilling at 375 feet; W. B. Pine's No. 3 fee, NW cor. NE SE Section 27-18-8, rigging. In the south extension of the Olive Pool, Jones-Doss' No. 1 Samuel, SW NE Section 7-17-8, was a machine rigging up. Doke and Hughes' have a machine on the location for No. 2 Watson, NW cor. NE NW Section 10-17-8.

Gus Beagle and others' No. 1 Allen, SW cor. SE NW Section 12-19-9, was completed as a pumping well making 5 bbls. a day from sand at 1,220-40 feet.

Nadel Oil Co. and others' No. 2 Vance, SE cor. SW SW Section 6-18-7, was completed after pumping 40 bbls. a day from the Bartlesville sand at 2,559-84 feet.

Regal Oil & Gas Co.'s No. 1 Ford, NE cor. NW NE Section 9-19-9, is estimated at 50 bbls. a day from sand at 2,040-71 feet.

W. A. Moore and others' No. 1 Swingle, NW cor. SE NE Section 16-18-8, has been completed for 15 bbls. a day on the pump, from sand at 2,712-60 feet.

C. R. Fortner and others' No. 2 Eufaula, NE cor. NW Section 5-18-11, was completed in the Red Fork sand at 1,589-1,626 feet, making 15 bbls. daily.

Tulsa and Muskogee Counties

O. M. Ireland's No. 2 Williams (twin), SE cor. SW NE Section 32-19-11, Tulsa County, was abandoned in the Mississippi lime at a total depth of 2,084 feet.

Adcock and others' No. 1 Roe, NE cor. SE SE Section 21-16-15, Muskogee County, has been abandoned at a total depth of 1,350 feet.

Robinson Oil Co.'s No. 1-A Jackson, SE cor. SW Section 8-13-16, was completed and abandoned at a total depth of 2,280 feet.

Oklahoma and Lincoln Counties

In the Messer area of Oklahoma County, Mid-Kansas Oil & Gas Co.'s No. 1 Dahl, SE cor. Section 31-14-3w, Oklahoma County, is a location.

Magnolia Petroleum Co.'s No. 3 Telford, SE cor. Section 7-14-4, Chandler Field, Lincoln County, was completed for 2,543 bbls. a day from the Wilcox sand at 4,992-5,007 feet. Same company's No. 1 Sedore, SE cor. SW NE Section 2-14-3, was abandoned at a total depth of 5,145 feet.

Amerada Petroleum Corp. and Stanolind Oil & Gas Co.'s No. 4 Brill, NW cor. NE NE Section 11-14-3, was completed flowing 2,042 bbls. a day from the Wilcox sand at 5,025-28 feet. Same companies' No. 6 Brill, NE cor. NW NE Section 11-14-3, is a rig on the ground.

Slick-Urschel, Inc.'s No. 2 Mayer, SW cor. NW NW Section 17-14-4, was put to pumping, making 300 bbls. daily from the pay at 5,024-33 feet.

Magnolia Petroleum Co.'s No. 4 Telford, SE cor. SW SE Section 7-14-4, was pumping 250 bbls. a day from the pay at 4,956 feet.

Okmulgee, Okfuskee and McIntosh

Gled Oil Co.'s No. 19 Fox, CNL SE NE SW Section 22-13-14, Okmulgee County, was completed for 85 bbls. a day from the Wilcox sand at 2,464-77 feet.

Bryan Petroleum Co.'s No. 1 Jefferson, NW cor. Section 34-16-13, was completed as a gas well making 1,000,000 feet from sand at 605-25 feet.

Claremont Oil Co.'s No. 2 Fisher, NW cor. SW NE Section 12-15-12, was completed swabbing 46 bbls. a day from the Red Fork sand at 1,251-1,305 feet after a shot. Same company's No. 1 Maxfield, NE cor. SE NW Section 12-15-12, was completed making 30 bbls. a day from sand at 1,227-66 feet.

Carr Perterson's No. 10 Ware, SE cor. SW SW Section 9-15-14, was pumping 20 bbls. a day from the sand at 807-30 feet.

Helmerich and Payne and others' No. 1 Lashley, SE cor. NW SW Section 25-10-10, Okfuskee County, was completed making 35,000,000 feet of gas a day from the sand at 3,239-57 feet. Same companies' No. 1 Brooks, SE cor. NE Section 26-10-10, is estimated to be making 40,000,000 feet of gas from sand at 3,240-54 feet.

J. L. Belby's No. 3 Peter (twin), SE cor. NE NE NW Section 9-12-11, was abandoned at a total depth of 2,676 feet.

Cusack and Rousville's No. 3 Johnson, SE cor. NW NW Section 29-12-12, was completed as a 4,000,000-foot gas well from the Booch sand at 1,895-1,914 feet.

Rossiter and others' No. 8 Burgess, NE cor. NW Section 20-12-13, was spudding.

McGirl & Sherry's No. 1 A-Unallotted, SW cor. Section 17-10-14, McIntosh County, was drilling at 300 feet. It will be a shallow gas test.

Seminole and Pottawatomie Counties

In the Greater Seminole area, Producers & Refiners Corp.'s No. 5 Foster, NW cor. Section 33-8-8, Seminole County, an old well drilled deeper, was completed making 62 bbls. a day from the Hunton lime at 3,960-80 feet.

Crofton Oil Co.'s No. 1 Strothers, C E half NE SE Section 3-9-6, is a cellar; Verser, Clay & Co.'s No. 1-A Butler, SE cor. NW NE Section 20-9-6, a rig; Ligon and Todd's No. 1 Wilson, NE cor. NW Section 30-8-8, drilling at 3,000 feet; Winona Oil Co. and Jarvis and Holm's No. 1 Myers, SE cor. SW NE Section 31-7-8, drilling at 900 feet.

Sinclair Prairie Oil Co. and others' No. 1 Bruno, NW cor. Section 6-6-5, Pottawatomie County, was completed for 170 bbls. a day from the pay at 4,085-4,122 feet.

Reaves and others' No. 1 Brandenberg, SE cor. SW NW Section 3-7-4, was abandoned at a total depth of 3,620 feet after the pipe collapsed.

Keyokla Oil Co.'s No. 2 Hines, NW cor. NE Section 9-7-4, is a rig. Mid-Continent Petroleum Corp. has a rig up for No. 1 Atwater, NE cor. SE SE Section 9-7-4. Elbar Oil Co.'s No. 2 Wyatt, SW cor. NW NW Section 10-7-4, was drilling at 110 feet. Seminole Supply Co.'s No. 2 Hawkins, NW cor. SW NW Section 19-7-4, was drilling at 1,850 feet. Conley Drilling Co.'s No. 1 Vinson, NE cor. Section 13-7-4, found a showing of gas and oil at 3,770-77 feet. Mid-Continent Petroleum Corp.'s No. 2 Upton, NE cor. Section 1-6-4, was spudding. Gypsy Oil Co. and others' No. 4 Tenwas, CWL SW SE NW Section 25-6-4, was digging cellar.

Hughes County

Elliott & Shell Petroleum Corp.'s No. 3 Pickens, NE cor. SW NE Section 15-7-8, in the West Holdenville Pool,

(Continued on Page 96)

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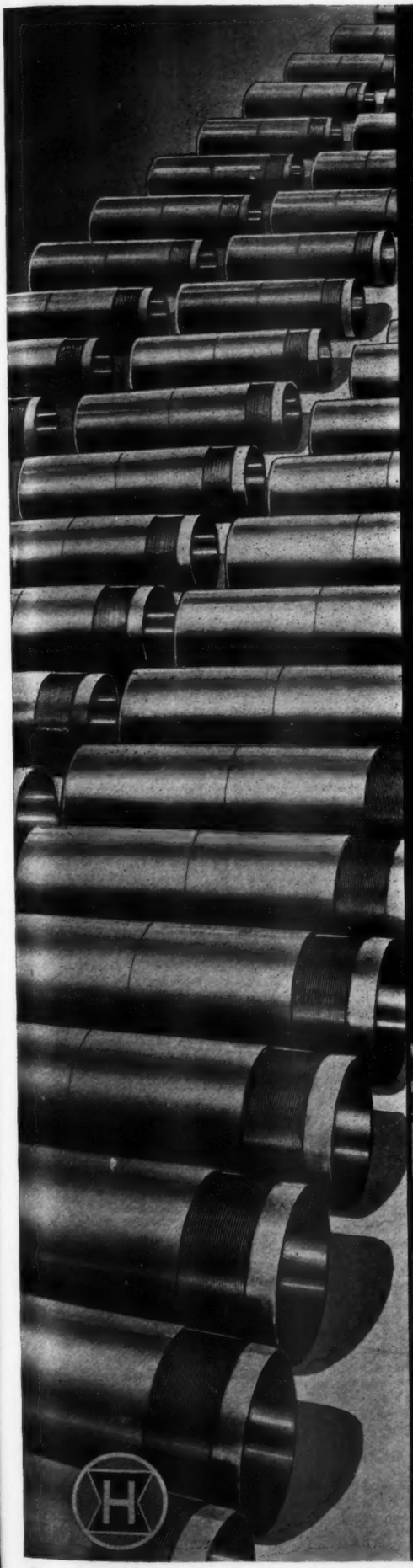

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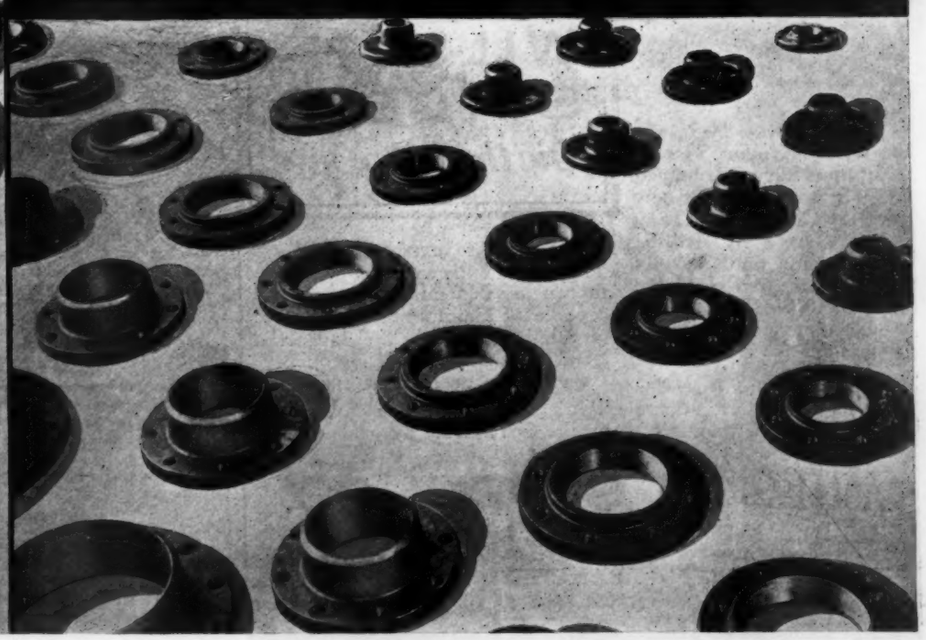

Manvel Field, Brazoria County, Holds Interest; Extended Exploration in Cleveland District

By A. C. EASTERWOOD
Gulf Coast Bureau, The Oil and Gas Journal

HOUSTON, Tex., Apr. 9.—Recent developments in the Manvel Field in northeastern Brazoria County has made this area one of the interesting spots in the Gulf Coast. A 1,700-foot extension to the north in the Miocene pay, three new locations in the southwest extension of the field to try for the Oligocene production, along with another failure south of the production held much importance during the past week, and gave possibilities of a more extensive drilling campaign for the area.

About 1,700 feet north of the nearest production, Texas Co.'s No. 4 O. F. Ewing has been completed for 860 bbls. daily, flowing through one-half inch choke. It was drilled to a total depth of 5,850 feet and later plugged back to 4,035 feet and set 30 feet 2 inches of 5-inch screen before completing. Gravity of the oil tested 24.8 degrees. It is in Lot No. 8 of the H. L. Little Survey.

Shell Petroleum Corp. made three locations for tests to be carried to the Oligocene, all just south of the Scopel extension well. Location for No. 1 Gubert was staked in the NE cor. Section 28 on the Charles O'Donnell Survey No. A-493, a south offset to Texas Co.'s No. 2 Scopel, and No. 2 in the NE cor. Section 29, while location for No. 3 was made in the SW cor. Section 28. Texas Co. has two wells drilling for the Oligocene production, being No. 1 Boff in the SW cor. Section 24, which was drilling below 2,220 feet in gumbo and boulders, and No. 1 Cascio which had only spudded.

Texas Co.'s picture of its block proved more accurate after another of the many fruitless attempts of operators to find production off the company's block. South of the Scopel discovery well Turnbull & Irwin's No. 1 Maraschin showed 14 fourbles of salt water on a drill stem test from 5,176-84 feet. It was later carried to a total depth of 5,398 feet and abandoned.

Montgomery County

Steen Drilling Co.'s No. 1 Texas Long Leaf, eastern Montgomery County, was still shut down at 6,053 feet, pending decision of its operators. It cored sand with a good odor of oil from 6,039-45 feet but had salt water sand from 6,045-53 feet, and on a drill stem test from 6,016-53 feet showed 23 thribbles of salt water after building up 250 pounds pressure in 11 minutes. The setback registered after finding water in this well has lulled the enthusiasm for the area, but this no doubt will be aroused again within the near future as it is reported that Humble Oil & Refining Co. is obligated to start a Cockfield well in the area during the coming month, and also has obligation for another test within 90 days after the completion of Steen's present well. Steen's well topped the Cockfield at 5,815 feet and had a sand at 5,855-77 feet which built up a pressure of 350 pounds and showed 2½ gallons of distillate and 2 gallons of mud in three and one-half minutes on a drill stem test. On a drill stem test from 5,873-84 feet it showed one joint of brown distillate and built up 575 pounds pressure in 15 minutes.

Across the line in northwestern Liberty County, Gulf Production Co.'s No. 2-C Kirby, a test of especial interest and located south of the discovery well at Cleveland, was drilling 7,684 feet in hard shale after topping the Crockett member of the Cook Mountain series around 7,004 feet. It is drilling for the Sparta found in the lower section of the Cook Mountain. If this well is carried to the Sparta it will be the first to encounter this horizon on the Gulf Coast. However, the Clay Creek Dome in Washington County has wells through the Sparta and to the Wilcox, but it is generally considered more of an inland dome. The only other active well for the area is Gulf Production Co.'s No. 3-C Kirby which was rigging up. It is south of the discovery well and in the direction of Brown & Wheeler's No. 1 Goldberg dry hole. The discovery well and only producer so far for the Cleveland area, Gulf's No. 1-C Kirby, during the past week produced an average of 148 bbls. of oil daily. It is being held back because of the excessive gas-oil ratio at a higher rate of flow.

Shell Petroleum Corp. is reported to have taken a block just southeast of the town of Cleveland, centering around the T. J. William Survey No. A-394 and the Jose Coronado Survey No. A-157.

About 15 miles east and little south of the Cleveland area, Turnbull & Irwin have spudded No. 1 Hildebrandt and late in the week were waiting on cement to set after setting surface casing at 566 feet. This test is about 12 miles north of Dayton, in the W. Whitlock Survey. Thomas and others' No. 1-A Eicke on a 300-acre tract in the Green Survey, which has been shut down for some time, is preparing to run casing. Operators claim to have 24 feet of sand and a show of oil with bottom of hole at 5,163 feet. It was considered by some as running normal on the upper markers. It topped the Heterostegina at 5,009 feet actual or 4,984 feet subsea.

Hankamer

At Hankamer, Miramar Oil Corp.'s No. 1 Crowe and Jacobs, 2,200 feet east of production was last reported drilling at 4,785 feet in shale. Before deepening, this test came in swabbing at the rate of 200 bbls. of 26 gravity oil daily through five-sixteenths inch choke, but later went dead.

Polk County

West of Schwab's gasser in Polk County, Alpha Petroleum Co.'s No. 1 Kirby & West proved disappointing the past week when it started flowing around 60 bbls. salt water daily through one-quarter inch choke on tubing. This test was considered a producer and operators set casing without testing after it had encountered 14 feet of oil sand topped at 4,893 feet and bottomed hole at 4,907 feet. Tubing pressure was 950 pounds. Sand in this well was encountered about 15 feet lower than the same sand in Schwab's No. 2 Kirby & West. Late in the week it was pulling screen and liner to deepen.

About 7,400 feet north and east of nearest production in the Livingston Field, Gist Oil Corp.'s No. 1 Kingsbury County Holding Corp. is rigging up separator. It is making about 1 bbl. of distillate an hour through one-quarter inch choke with 2,500,000 feet of gas daily at a total depth of 4,242 feet. Tubing pressure is 1,550 pounds. Two completions were recorded in the pool during the week. Smith & McDannald's No. 1 W. D. Munson bottomed hole at 4,337 feet and has been completed for 22 bbls. per hour through one-half inch choke. Vick H. Borsodi and others' No. 1 J. M. West Lumber Co. was abandoned as dry with total depth of 4,359 feet.

Newton and Jasper

On the easternmost flanks of the Texas Conroe trend in Newton County, Tide Water Oil Co. and Darby Petroleum Co.'s No. 1 Southwestern Lumber Co., in the H. Cochran Survey northwest of Bleakwood, was waiting on cement to set at 1,021 feet where 10-inch casing was cemented with 300 sacks. This test was delayed several days because of a fishing job at 360 feet created by surface sands caving in on the tools. To the west of this well and northeast of Spurger, but in Jasper County, Louis Franklin's No. 1 Cartwright will again be delayed in spudding, as heavy rainfall has made roads impassable. It was scheduled to start up several weeks ago but obtained an extension.

Hardin County

The showings of oil and gas in Parr and others' No. 1 Benard, east of the Sour Lake Field in Hardin County, has aroused much interest. The area is being played heavily by several independents, and the possibility of finding production in the Cockfield this deep in the Salt Dome belt of the Gulf Coast has created interest throughout the area. To the northwest of the Sour Lake Field and in the vicinity of the George T. Payne Survey, Sun Oil Co. is reported actively leasing acreage. Reason for the delay in testing this Cockfield well is attributed to the report that Sun Oil Co. is on a deal for the well and acreage. The test has been shut down for over two weeks after cementing 7-inch casing at 6,886 feet. It had sand showing oil and gas from 6,936-44 feet. Steinberger Petroleum Co. has staked location for No. 1 Weiss, 150 feet west of Parr's well.

Of especial importance is the test of Danciger Oil & Refining Co.'s No. 2 Hooks, on the south side of the Batson Dome in Hardin County. For sometime it looked as though this test would be junked and abandoned in the heaving shales around 4,400 feet, but after a cementing job has been carried to a total depth of 4,790 feet possibilities are said to be bright for a producer. It topped a good-looking oil sand at 4,782 feet and operators are now preparing to set screen and test. It is 330 feet east of the center of Block 24 of the W. Donoho Survey.

Fort Bend County

Phillips Petroleum Co.'s No. 1 A. E.

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Dig the Deep Ones

These two 14x7¼x18 Wilson-Synder Slush Pumps have just helped to discover another new Gulf Coast Field. They were used by drilling contractor on the Skelly Oil Co.'s No. 1 Cobb, Van Vleck, Texas, Matagorda County, which was drilled to more than 7,000 feet.

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Holmes, wildcat test about 7 miles northeast of Richmond in Fort Bend County, was shut down at 6,022 feet after completing its contract depth to 6,000 feet. This test is considered checking higher than normal and the general opinion is it will be carried deeper. It topped the Discorbis at 3,626 feet and encountered top of the Heterostegina at 3,710 feet actual or 3,606 feet subsea. O'Connor Dome Oil Co.'s No. 1 Grigor, 4 miles west of Orchard, was shut down at 5,185 feet. It had 40 feet of sand, top of which was drilled at 4,123 feet, showing water.

The wildcat test of Quintana and others' No. 2 Wood, O'Connell & Mellon has been abandoned as dry with total depth of 6,377 feet in shale. On a drill stem test from 6,285-6,305 feet open 10 minutes it showed 1,600 feet of mud with 2,250 feet of salt water through three-eighths inch choke on top and bottom. In the Big Creek area, C. & R. G. Drilling Co.'s No. 1 Wheat has been abandoned with total depth of 5,085 feet in salt. Top of salt was drilled at 3,730 feet. The completion of Humble Oil & Refining Co.'s No. 24-B Lockwood-Sharp at Thompson probably marks the limits of production on the west side of the field. It was abandoned as dry with total depth of 5,461 feet.

Harris and Walker

A very active leasing campaign has lately been in progress south of the Ogburn Survey and south of the old dry hole of Cranfill & Reynolds in the eastern part of Harris County. Humble Oil & Refining Co. is thought to be the principal purchaser and as a result acreage prices have soared to as high as $100 per acre. Farther to the west of this area and across the county line in southeastern Waller County an old lease play that started in the fall of 1933 has been revived. Several major companies have acreage in this area and during the past few weeks additional acreage has been taken with prices now said to be ranging up to $120 per acre, 50 per cent cash and 50 per cent out of oil. This area has been worked extensively by geophysical instruments and it is reported that Stanolind Oil & Gas Co. has a proposed location in the area.

Jackson County

In Jackson County, Encio Gas Co.'s No. 1 Toney in the Raymon Musquiz Survey was drilling at 4,300 feet, having encountered no shows of importance, although it has drilled three gas sands. It had shows of gas from 2,570-2,600 feet, 3,300-30 feet and 3,940-50 feet. Atkins & O'Neil's No. 1 Davis in I.&G.N. Survey No. 18, was drilling at 5,050 feet.

Goose Creek

The new discovered deep sand at Goose Creek in Harris County is now getting considerable activity. On the north side of the dome, Miramar Oil Co.'s No. 1 Hughes flowed 650 bbls. of 27 gravity oil the first 24 hours through three-eighths inch choke with no water. Total depth is 4,016 feet or 486 feet higher than Gulf's No. 17-A Tabbs, discovery well that started the renewed activity Gulf's No. 13 Tabbs, east offset to No. 17-A, went dead the past week and was preparing to rig up to pump. The day before it quit flowing it made 125 bbls. net oil with 7 per cent water through one-quarter inch choke. To the southeast, Humble Oil & Refining Co.'s No. 79 Simms Smith which missed the 4,500-foot pay and drilled to a total depth of 5,415 feet, has been plugged back and late in the week was waiting on cement at 3,430 feet. Heffner & Moore's No. 1 Wright had missed the 4,000-foot pay horizon and late in the week was coring around 4,500 feet.

Tomball

G. L. McCarthy and others' No. 1 Preston in Block 9 of W. A. Payne Subdivision has been abandoned as dry with total depth of 6,001 feet. Tomball marked up three completions during the past week, one gasser and two oil producers. Humble Oil & Refining Co.'s No. 2-B Quilter in the A. Seneschal Survey was completed for 2,000,000 feet of gas with total depth of 5,567 feet in hard sand. Windsor Oil Co.'s No. 3 T. Petrich in the J. H. Edwards Survey was completed for 50 bbls. of oil in 17 hours through one-eighth inch choke with total depth at 5,600 feet. The field was extended a half mile west by the completion of Humble Oil & Refining Co.'s No. 1 Ben Scherer in the J. H. Edwards Survey. It bottomed hole at 5,599 feet and was completed for 432 bbls. daily through one-quarter inch choke.

Refugio County

In the Bonnie View district of Refugio County and about 2 miles southwest of Woodsboro, C. B. Bunte's No. 1 Rooke has completed derrick. The leasing by the State of a portion of the San Antonio River bed to a group of Dallas oil operators is expected to cause more extensive drilling operations in the O'Connor Field in northern Refugio County and southern Victoria County. The lease extends from a point a short distance below the river bridge to the north line of the John Keating Survey of the D. M. O'Connor ranch, embracing 92 acres. It is reported the bidders paid $33,000 for the lease. Humble Oil & Refining Co.'s No. 12 O'Connor was completed during the past week for 35 bbls. daily with total depth of 3,082 feet.

Van Vleck

On the Van Vleck geophysical prospect in Matagorda County, Skelly Oil Co.'s No. 1 Cobb is still shut in. Operators plan to install bottom hole chokes in the near future to prevent connections from freezing up. On a three-hour test it made 5 bbls. of 57 gravity brown distillate per hour, or an average of 120 bbls. daily with 7,800,000 feet of gas. Pressure on tubing and casing is 2,575 pounds. Total depth is now 7,076 feet after plugging back from 7,178 feet.

San Jacinto County

In the Peach Creek area of San Jacinto County, the wildcat test of Turnbull & Irwin, No. 1 Fitzgerald, in the Gowan

(Continued on Page 105)

Gulf Coast Fields and Wildcats

Week Ending April 7

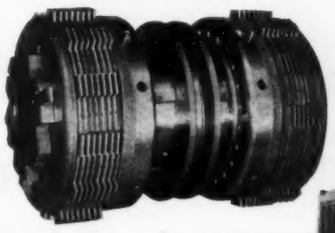
DAMON MOUND—BRAZORIA COUNTY

Company, farm and location—	Remarks:
Intercoastal Oil Co.'s No. 11 Wisdom, 350 ft. E of No. 6, Blk. 51, Lot D, A. Darst Sur.	T.D. 2,652 ft.; flowed 190 bbls. fluid, 50% water; packer stuck 32 ft. off bottom; milling.

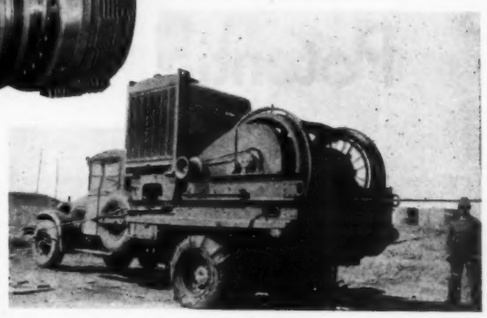
MANVEL—BRAZORIA COUNTY

Burton Drlg. Co.'s No. 1 Parker, 40 ft. E and 70 ft. S of SW cor. of Lot No. 28, H.T.&B. Sur. No. 63	S.D. 1,085 ft.
Shell Pet. Corp.'s No. 1 Gubert, 200 ft. from N line and 200 ft. from E line of Blk. 28, C. O'Donnell Sur. No. 74	Location.
Shell Pet. Corp.'s No. 2 Gubert, 268 ft. from N and 325 ft. from E line of Lot 29, C. O'Donnell Sur. No. 74	Location.
Shell Pet. Corp.'s No. 3 Gubert, 70 ft. from S line and 40 ft. from W line of Lot 28, C. O'Donnell Sur.	Location.
Texas Co.'s No. 9-B Belcher, 2,691 ft. N 42 deg. E from S cor. H. N. Little Sur., and 330 ft. NW at R/A from survey line	Cored 4,276-80 ft., sand and shale; no show.
Texas Co.'s No. 1 Boff, 265 ft. from S and 335 ft. from W line of C of Lot 24, H.T.&B. Sur. No. 74	Drlg. gumbo and boulders 2,217 ft.
Texas Co.'s No. 1 Cascio, 200 ft. E of Scopel lease and 330 ft. at right angles SW of Belcher "B" lease	Rigging up.

(Continued on Page 105)



Twin Disc Multiple Disc Close Coupled Duplex Clutch



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The hoist's forward drive clutch is a 12-in. Twin Disc Close Coupled Duplex Clutch and the reverse clutch, which gives high speed reverse action on cable drum, is a 9-in. Twin Disc of the same type. And a Twin Disc Power Take-Off Unit transmits the power from the hoist's engine.

"We have found," says the Muskogee Iron Works, "by actual tests which were carried on by ourselves for approximately 18 months, that Twin Disc Close Coupled Type Clutches give the most desirable performance on hoist equipment, . . . particularly that used for rod and tube pulling operations . . . of any similar clutch devices used in this same type of service."

Write for specific recommendations.
Engineering data on request.

TWIN DISC CLUTCH COMPANY
1328 Racine St. Racine, Wis.

Wells in Kansas Wildcat Areas Will Be Given Potential Tests, Lauck Well Is Completed

By JAMES McINTYRE

Wildcat tests in Kansas are still holding interest following the announcement that the wells in Stafford and Reno Counties will receive potential pumping tests during the week.

Considerable activity is expected in central western Kansas as the result of recent wildcat strikes. The Higler area in Reno County, where the Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 1 Higler, SE cor. NW Section 16-26-4w, is due to be completed, three other tests will start as soon as a potential has been taken of the discovery well. Two offsets are scheduled at once on leases held by the same companies and the other offset will probably be started at the same time.

The general activity is expected to extend along the Abilene Arch trend, on account of the fine showing of oil found in the Viola lime and the possibilities of securing production in the Wilcox sand horizon which is only a few feet deeper.

The No. 1 Higler, in Section 16-26-4w, found oil in the Viola lime at 4,062-67 feet and a potential test has been delayed on account of heavy rains. Storage tanks are being erected and a 4-inch pipe line is being built from the well to a loading rack at Haven, on the Missouri Pacific Railroad about 8 miles north of the well. A further delay in taking potential tests may be expected as the owners plan to treat the well with acid. As it stands at the present time it is estimated at 500 bbls. a day.

In Stafford County, the wildcat test, Vickers Petroleum Co.'s No. 1 Cravens, SW cor. NE Section 15-25-11w, will also force three offsets, one will be west while the others will be south. A potential production will be made in a few days. It had been making a small flow once or twice a day before tubing and rods were run to put the well on a pumping test. It is producing from the Viola lime at 3,920-26 feet.

Lauck Well Tested

Another interesting wildcat test in Sedgwick County has resulted in the staking of three other locations in the vicinity. The wildcat well is D. R. Lauck and others' No. 1 Jordan, NW cor. SW SE Section 6-28-1w, which found production in the Wilcox sand at 3,652-53 feet. The 5-inch casing was landed at 3,651 feet and it flowed for five hours and then went dead, making 1,100 bbls. of oil. When it was reopened it refused to flow and was then swabbed making 370 bbls. of oil in 12 hours. The operators ran 3-inch tubing. It then flowed 357 bbls. of oil in five hours. The state umpire has given the well 190 bbls. a day allowable. It has been completed and it opened a new producing area southwest of Wichita.

Skelly Oil Co.'s pipe line from Burrton area in Reno County to the Cunningham Pool, in Kingman County, has been completed.

One of the next wildcat tests expected to reach the pay will be Duwe & Dustin's No. 1 Evans, C NE NW Section 25-25-8w, Reno County. It was drilling at 2,810 feet and is within 2,000 feet of a Kansas City lime producer.

This test is being watched as a possible extension well as the discovery well completed in January, 1926, by Hartman & Skear and later sold to Skelly Oil Co., has been producing since that time. Efforts to extend the production in the area have failed to date. Oil in the discovery well was found at 3,545 feet in the Kansas City lime.

Estimated daily production of important pools in Kansas for the week ending April 6 and for the preceding week was as follows:

Pool—	Apr. 6	Mar. 31
Hollow	12,240	11,070
Rl.z-Canton	12,845	13,435
Voshell	6,975	7,520
Sedgwick County	6,800	7,065
Nikkell	4,875	5,430
Ellsworth County	3,351	4,418
Barton County	490	1,025
Rice County	10,364	11,377
Reno County	3,093	3,194
Ellis County	333	274
Klngman County	2,111	1,679
Stafford County	1,327	177
Russell County	7,350	7,385
Greenwood County	12,250	12,250
Butler County	17,000	17,000
Other pools	22,306	22,176
Total	123,710	125,475

Lease Cancellation Test

The U. S. Supreme Court has been asked to decide whether owners of land leased to oil companies may have the lease canceled to that portion of the land on which a company refused to drill additional wells.

Having leased 360 acres of land in Greenwood County, Kansas, Philip Sauder, who has since died, instituted suit to have the lease on a portion of it canceled, claiming the Mid-Continent Petroleum Corp., holding the lease, had refused to explore or develop it.

The company, through Richard H. Wills, argued in court that having brought in oil on a portion of the lease, it had complied with its conditions. It insisted diligent and reasonable development did not require the drilling of additional wells when unwarranted in the judgment of operators of ordinary prudence. Market and other conditions should control, it insisted, in determining when new wells should be opened.

Henry W. Colmery, counsel for the owners of the land, contended they were entitled to have the whole tract developed, and insisted the owners' rights were being ignored by the refusal of the company to open new wells. He argued the ruling of the Tenth Circuit Court of Appeals in support of the position taken by the company should be set aside and the company be required to explore and develop the whole tract or surrender the lease on that portion it refused to develop.

McPherson County

Rice Oil Corp.'s No. 1 Wyles, NE cor. NW NE Section 25-19-2w, McPherson County, in the Ritz-Canton Pool, was completed with an initial flow of 324 bbls. daily from the Viola lime at 3,407-37 feet.

Lario Oil & Gas Co. and Shell Petroleum Corp.'s No. 5 Hill, CWL E half SE Section 23-19-2w, has been completed, making 225 bbls. a day from the pay at 3,377-3,427 feet.

E. F. Jones and others' No. 2 Santa Fe, SW cor. NW SW Section 32-19-2w, was abandoned at a total depth of 1,100 feet.

Helmerich and Payne's No. 5 N. W. Russell, NW cor. NE Section 23-19-2w, made 427 bbls. of oil on its initial gauge and was completed from pay at 3,352-3,356 feet.

Mid-West Exploration Co.'s No. 4 Schmidt, SE cor. NE NW Section 33-21-3w, made 245 bbls. of oil and was completed from the pay at 3,455-60 feet.

Harris & Haun and Phillips Petroleum Co. completed a dry hole at No. 1 Rupp, SW cor. Section 12-21-2w. It was abandoned at a total depth of 3,527 feet.

Madison and others' No. 1 Boecker, SE cor. NW Section 29-21-1w, and Eisenhour and others' No. 1 Kaufman, NE cor. SW SE Section 24-20-3w, are abandoned locations.

Helmerich and Payne have completed a derrick for No. 1 Lovett, C SW NW SW NW Section 24-19-2w.

Shell Petroleum Corp. is moving in rig material for No. 3 Finkle, NW cor. NE NW Section 23-19-2w.

Jess Cling and others' No. 1 Paulseen, NW cor. NE NW Section 6-19-2w, is a rig on the ground.

T. C. Johnson has erected a rig for No. 1 Benson, SE cor. SW SE Section 12-19-3w.

Butler and Greenwood Counties

George Bruce and others completed a dry hole at No. 1 Miller, C SE NE Section 10-28-4, Butler County, at a total depth of 2,621 feet, where it was abandoned.

Ward McGinnis' No. 1 Prather, NE cor. NW SE Section 15-25-11, Greenwood County, was completed for 35 bbls. a day on the pump from the Bartlesville sand at 1,670-83 feet.

Gore and Phillips Petroleum Co.'s No. 7 Beal, NE cor. SW NE Section 28-23-11, was put on the pump and made 75 bbls. a day from 1,919-84 feet.

Smith and Polhamus' No. 1 Sample, CSL S half SE Section 35-25-10, was a cellar.

Ward McGinnis was spudding at No. 12 Wiggens, CEL SW NE Section 30-24-11.

Harvey and Reno Counties

Frost and others' No. 5 Martens, SW cor. NE SE Section 19-22-3w, Harvey County, was completed for 225 bbls. a day from 3,453-63 feet.

Ira Keith and others' No. 1 Crotts, NE cor. NW NE Section 27-26-10w, Reno County, was abandoned at a total depth of 266 feet.

Olson Drilling Co. and Shell Petroleum Corp.'s No. 3 Roberts, C NW SW Section 25-23-4w, is a rig on the ground.

Sedgwick County

Sovereign Oil Co. was drilling at 1,750 feet at No. 1 Miessin, SW cor. NE SW Section 6-26-1, Sedgwick County.

Paul H. White and others have erected a rig for No. 1 Gainin, SW cor. NE NW Section 6-26-1.

Marylyn Oil Co. and others were moving in a machine for No. 1 Rothfuss, NE cor. NW NE Section 7-26-1.

Rice, Stafford, Russell and Barton

Skelly Oil Co. found its No. 1 Gill, CEL NE NE Section 15-19-10w, Rice

(Continued on Page 96)

Wildcat Operations in Kansas

Week Ending April 7
(Descriptions are East unless marked otherwise)

Company, farm and location—	Remarks:
BARTON COUNTY	
Skelton et al's No. 1 Ott, C SE SE Sec. 16-19-14w	P.B. to 3,255 ft.; acidized; pumping wtr.
Walter Shearen et al's No. 1 Kempler, SE NE NE Sec. 31-18-11w	Material.
BUTLER COUNTY	
DeGenther et al's No. 1 Marnane, NW cor. Sec. 29-26-3	Cellar.
Tom Palmer and Darby Pet. Co.'s No. 1 Harder, NW NE Sec. 27-24-3	Drlg. 1,050 ft.
Van Meter et al's No. 1 Moore, NE cor. Sec. 5-26-4	Rig.
DICKINSON COUNTY	
Dutch Oil Co.'s No. 1 Phillips, C NE NW Sec. 15-15-1e	Drlg. 300 ft.
ELLIS COUNTY	
Alma Pet. Co. et al's No. 1 Rhodes estate, SW SW Sec. 14-11-23w	Rig on ground.
ELK COUNTY	
Lerke et al's No. 1 Mason, C NE NE Sec. 5-31-10	Drlg. 900 ft.
ELLSWORTH COUNTY	
Smith & Ash et al's No. 1 Wilkins, SE cor. Sec. 13-17-10w	Drlg. 1,785 ft.
FINNEY COUNTY	
National Ref. Co. et al's No. 1 Smith, C SE SW Sec. 2-23-29w	T.D. 3,323 ft.; U.R. csg.
GREENWOOD COUNTY	
Ackman et al's No. 1-A Gilroy, SE SW NW Sec. 24-25-13	Drlg. 150 ft.
Oko O. & G. Co.'s No. 1 Austin, C SE Sec. 11-22-10	Drlg. 700 ft.
McPHERSON COUNTY	
Tom Palmer's No. 1 Nordling, SE SW Sec. 19-18-2w	Rig.
Slick, Pryor & Lockhart's No. 1 Ordineal, SE SW SE Sec. 21-20-3w	Drlg. 150 ft.
Continental Oil Co. et al's No. 1 Graber, NE NW Sec. 32-21-1w	Rig.
Jim Madison's No. 1 Boesker, SE NW Sec. 29-20-1w	Spudded.
Harris & Haun's No. 1 Rupp, SW cor. Sec. 12-21-2w	Drlg. in sand 3,460-85 ft.
PHILLIPS COUNTY	
Ashby et al's No. 1 Close, C SE Sec. 24-5-18w	Drlg. 2,735 ft.
RENO COUNTY	
Stanolind and Amerada's No. 1 Hilger, SE NW Sec. 16-26-4w	R.U.S.T. 4,065 ft.
RICE COUNTY	
Deltrick et al's No. 1 Fitzpatrick, C NE NE Sec. 30-21-8w	Drlg. 100 ft.
Foraker & Hutchins' No. 1 Smyser, SE NW Sec. 28-20-8w	Cellar.
Geo. Dickey et al's No. 1 Hunter, NE cor. Sec. 35-19-7w	Drlg. 2,775 ft.
Langston et al's No. 1 Markle, NE SW Sec. 1-20-9w	T.D. 1,057 ft.; C.O.
Reserve Dev. Co.'s No. 1 Heinz, NE SW SE Sec. 8-18-10w	Material.
ROOKS COUNTY	
Ashby et al's No. 1 Stockton, C SW SW Sec. 15-8-19w	Rig.
Phillips Pet. Co.'s No. 1 Dopitz, C SW SW Sec. 31-8-17w	Drlg. 2,400 ft.
RUSSELL COUNTY	
Western Exploration Co.'s No. 1 Andres, SW cor. Sec. 30-15-13w	Drlg. 2,500 ft.
SEDGWICK COUNTY	
D. Lauck and Shoreline Oil Co.'s No. 1 Jordan, NW SW SE Sec. 6-28-1w	Wilcox 3,652-53 ft.; hole full of oil; preparing to test.
STAFFORD COUNTY	
Vickers Pet. Co. and Phillips Pet. Co.'s No. 1 Cravens, SW NE Sec. 15-25-11w	Viola 3,920-21 ft.; showing oil.
SUMNER COUNTY	
Wentz and Continental Oil Co.'s No. 1 Kerns, SE cor. NE Sec. 6-34-2w	Drlg. 4,225 ft.; showing wtr.
TREGO COUNTY	
Central Commercial's No. 2 King, C SE SW NE	Drlg. out cave; T.D. 4,015 ft.
WOODSON COUNTY	
Lewis Bros.' No. 1 Riggs, SW cor. Sec. 10-26-14	Set pipe at 765 ft.; S.D.

New Wildcats Feature North Louisiana Report; One Good Gas Well in Richland Parish

By J. R. CRUMPTON
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Apr. 9.—A number of new wildcats in widely separated areas in the North Louisiana district made up the only news of interest in this division during the past week. Seven completions were reported, but aside from one good gas well in Richland Parish, none of them was of any importance. In Red River Parish, S. T. Onyett, trustee, has set surface casing at 100 feet on his No. 1 J. E. Thomas in Section 34-13-8. This test is on a block of 7,500 acres with a good geological report submitted by G. W. Branon. Three tests have previously been drilled in the vicinity. Gulf Refining Co. drilled a well about 3 miles northeast last year, Phillips Petroleum Co. 1½ miles south and Sales and others about 3 miles to the northwest. All of these wildcats had shows at various depths. Gulf Refining Co. has definitely decided to drill its block of 5,000 acres recently assembled north of Sibley in Webster Parish, but the exact location has not been announced at this writing. This acreage was leased on a straight commercial basis, but previous torsion balance surveys made by this company in that area indicates a good structure. In Bienville Parish, south of the town of Gibsland, J. P. Evans has staked location for his No. 1 First Naional Bank of Gibsland in Section 15-17-7. This test, on a 10,000-acre block, is to be drilled to 3,000 feet.

A total of 10 other new operations were announced for the North Louisiana district, but with the exception of W. B. Flynn's No. 1 Nabors, Section 6-12-11, DeSoto Parish, all of them were in the proven areas of oil or gas fields. Three new locations were staked in the Ouachita area of the Monroe gas field by the Arkansas-Louisiana Pipe Line Co., a subsidiary of Cities Service Co. The Converse Field showed continued activity with five new operations.

Completions

The completions in this district consisted of three oil wells, one gas well and three dry holes. The Hosston area, Caddo Parish, reported one small pumper with the completion of Shore Line Oil Co.'s No. 40 Crystal Oil Co., Section 13-21-16, pumping 10 bbls. daily from 1,057 feet. In the Zwolle Field, Sabine Parish, Baird Brothers' No. 1 Cooper, Section 30-8-11, was a 15-bbl. pumper from 2,582 feet, and the Converse Field furnished the other producer, Cleary Brothers' No. 1 E. K. Brown, Section 10-9-13, pumping 30 bbls. from 1,997 feet. United Carbon Co.'s No. 1 Wolf, Section 35-17-6e, in the Richland Field, gauged 41,580,000 feet of gas with 585 pounds rock pressure from 2,399 feet.

North of the Elm Grove Field, Bossier Parish, C. R. Reid's No. 1 Dotys, Section 7-16-11, was officially abandoned as salt water and a small amount of gas from a total depth of 3,020 feet. The well blew in wild about three months ago with only 100 feet of surface casing in the hole, and cratered badly before it was killed. In the Bethany area, Caddo Parish, Calatex Oil & Gas Co.'s No. 2 Taylor, Section 11-16-16, encountered salt water and was abandoned at 3,018 feet. The other duster was George M. LeGrand's No. 1 C. W. Faris, Section 19-11-15, DeSoto Parish, testing salt water at 2,665 feet.

Only a few of the wildcats in North Louisiana were tested during the week, all of which resulted in salt water or with practically no shows of either oil or gas. Bossier Oil & Gas Co.'s No. 1 Sherrill, Section 13-9-12, Bosier Parish, has plugged back to the Nacatoch sand at 850 feet, and will set 6-inch casing at 775 feet to test that formation. The well was drilled to a total depth of 2,261 feet, but failed to get the anticipated gas that showed in a previous well drilled a short distance to the northeast. One of the wells that will be closely watched during the coming week is A. D. King, trustee's No. 1 Sallie H. Roach, Section 4-14-16, in the southern part of Caddo Parish near the DeSoto line. This well is making good progress after skidding over from a junked hole at 1,541 feet, and has set surface casing at 101 feet and drilling at 700 feet. The wildcat, started as a 4,000-foot test, encountered a show of oil in chalk at the total junked depth.

Sabine Parish

In Sabine Parish, between the Zwolle and Converse Fields, R. L. Gay, trustee's No. 2 Long-Bell Lumber Co., Section 10-8-13, has milled out casing at 4,547 feet and will make a test of the Oolitic lime in the Glen Rose. The old total depth of this deep test was 7,154 feet, and during the progress of drilling a 7-inch string of casing was set at 4,725 feet. The best show encountered along the log was in the lime which will be tested a second time. R. W. Norton's deep test in the Rodessa Field, No. 1-B French, Section 34-23-16, Caddo Parish, has experienced many drilling difficulties during the past two weeks. A short string of 4½-inch casing was set to test a sand with the total depth at 6,717 feet, but in the process 2-inch tubing was cemented into the casing. The latter was pulled and the casing has been milled out at the total depth of 6,642 feet. A few miles northeast of the Rodessa gas field, the Arkansas-Louisiana Pipe Line Co. is rigging up on its No. 1 Rodessa Oil & Land Co., Section 23-23-16, within the town limits of Rodessa for which the field to the southwest was named. United Gas Public Service Co. has made location for No. 1 Deer, Section 28-23-16, in the proven area, and it is reported that the same company will make a location to the west in Cass County, East Texas. This area seems destined to get a good drilling play both for gas around the 5,600-foot level and oil which is expected in the lower horizons of the Trinity series.

Sligo Field

The Sligo district in Bossier Parish is another potential big producer of oil and gas from the Trinity horizons that will be thoroughly tested within the next few months. Producers Oil & Gas Co.'s wildcat, Section 7-17-11, a few miles north and east of the proven gas area, has set 10-inch surface casing at 142 feet, tested the Nacatoch which was dry from 900 to 970 feet and is drilling ahead. The Sligo Field produces from the Nacatoch, Blossom and Woodbine in the shallower horizons, and has two wells producing from Oolitic lime of the Glen Rose. The latter is encountered around the 4,500-foot level, and recently while drilling a well to this depth, the United Gas Public Service Co. had a gas blowout, estimated at 75,000,000 feet from 3,210 feet, and which is believed to be the Washita or Fredericksburg between the Woodbine and the top of the Trinity. It is reported that the latter company will soon start another deep test in that area.

In Rapides Parish, Ben Banner's No. 1 Bently Lumber Co., Section 11-6-6, has spudded in and set 10-inch surface casing at 150 feet. Two other wells in that parish are temporarily shut down. W. F. Lacey's No. 1 Logan, Section 2-9-13, about 3 miles north of the Converse Field, Sabine Parish, probably will not be a commercial well, but tested enough oil to warrant further drilling in the vicinity. Acid was used at 1,975 feet and the test developed 1,000 feet of salt water and oil after deepening to 2,006 feet from 6 feet of sand below the chalk rock.

ARKANSAS

This district reported three completions, all dry holes. In Ashley County, K. R. March and others' No. 1 Williams, Section 8-18-4w, was dry and abandoned in igneous rock at 3,287 feet. The top of the gas rock was logged at 2,849 feet. C. W. Alworth and others' No. 1 King, Section 16-17-20, Columbia County, has been inactive for some time and was officially abandoned at 3,039 feet. In Ouachita County T. P. Lester's No. 1 Poindexter estate, Section 35-15-18, tested dry and was abandoned in red beds at 3,007 feet. One new location was reported from the Arkansas district, the Marine Oil Co.'s No. 1-A Union Saw Mill, Section 2-18-13, in the Urbana Field.

Daily Average Runs

The Zwolle Field continues to register a decline in its daily average runs, decreasing practically the entire 785 bbls. loss of the North Louisiana fields. The Arkansas district also decreased 310 bbls. in the daily runs to net a total for the combined fields of 1,095 bbls. The daily average runs from the several pools were:

NORTH LOUISIANA	Bbls.
Caddo light	4,590
Caddo heavy	1,630
Converse	1,350
Cotton Valley	570
DeSoto and Red River	1,505
Elm Grove	400
Haynesville	3,735
Holly	190
Homer	2,605
Pleasant Hill	215
Sarepta-Carterville	725
Urania	2,915
Zwolle	6,400
Total North Louisiana	26,830
Total previous week	27,615
Decrease	785
ARKANSAS	
Champagnolle	1,260
El Dorado	2,485
Lisbon	365
Miller County	1,060
Nevada	765
Smackover light	2,400
Smackover heavy	19,715
Stephens	605
Urbana	2,075
Total Arkansas	30,730
Total previous week	31,040
Decrease	310
Total both states	57,560
Total previous week	58,655
Decrease	1,095

Wildcat Operations in Louisiana-Arkansas

(Rotary operations unless otherwise designated)

North Louisiana

AVOYELLES PARISH

Company, well, farm name, section and block— Remarks:

Haas & Stokes' No. 1 Lindstrum Land Co., 690 ft. S, 980 ft. E, NW cor. Sec. 34-1n-6e ..... Set 12-in. 40 ft.

BOSSIER PARISH

Bossier O. & G. Co.'s No. 1 Sherrill, 300 ft. S and W, NE cor. Sec. 13-9-12 ..... P.B. 850 ft.; arranging set 6-in. 775 ft.

C. B. Duffield's No. 2 Werner, Sec. 11-18-13 ..... Rigging up.

Ford & Hanover's No. 1 Cryer, 330 ft. S and W, NE cor. NW SW Sec. 25-19-12 ..... Drlg. 700 ft.

McKinney & Stewart's No. 1 Nattin, 470 ft. W, 620 ft. S, NE cor. Sec. 22-22-14 ..... S.D. 2,665 ft.

Producers O. & G. Co.'s No. 1 Werner, 660 ft. N and W, SE cor. Sec. 7-17-11 ..... Set 10-in. 142 ft.; testing 970 ft.

C. E. Reid, tr.'s No. 1 Doty, 730 ft. S, 618 ft. W, NE SE Sec. 7-16-11 ..... S.W. and abd. 3,020 ft.

CADDO PARISH

Ark.-La. P. L. Co.'s No. 1 Rodessa Land Co., 1,290 ft. N, 645 ft. W, SE cor. Sec. 23-23-16 ..... Rigging up.

W. O. Bliss' No. 1 McDade, 330 ft. N and E, SW cor. NW NW Sec. 2-20-15 ..... Used acid; W.O.S.R. 1,640 ft.

Burkett O. & G. Co.'s No. 1 Lindholm, 400 ft. S and E, NW cor. NE SE Sec. 15-17-14 ..... S.D. 750 ft.

CALDWELL PARISH

Terrell & Price's No. 1 La. Central Lbr. Co., 300 ft. N, 300 ft. W, SE cor. NW NE Sec. 18-11-3e ..... Fishing for D.S. 2,080 ft.

CATAHOULA PARISH

T. R. Hincey's No. 1 Millsaps, Sec. 32-9-4e ..... Rigging up.

DE SOTO PARISH

Bailey Gaunce's No. 2 Jenkins, 330 ft. N and W, SE cor. SW SW Sec. 35-13-12 ..... S.D. 1,086 ft.

Berry Oil Co.'s No. 1 Wemple, Sec. 14-12-11 ..... Drlg. 225 ft.

Dempsey & Manziel's No. 1 Thigpen, 375 ft. S, 330 ft W, NE cor. SW NE Sec. 33-13-13 ..... Set 12½-in. 100 ft.

Geo. M. LeGrand's No. 1 Faris, 330 ft. S and W, NE. cor. SE Sec. 19-11-15 ..... S.W. and abd. 2,665 ft.

LINCOLN PARISH

Triangle Drlg. Co.'s No. 1 Colvin, 660 ft. E of C Sec. 31-20-3w ..... Derrick.

MOREHOUSE PARISH

Zeiger & Bacon's No. 1 Crossett, 400 ft. N, 300 ft. W, SE cor. Sec. 41-23-4e ..... S.D. 2,155 ft.

(Continued on Page 110)

DRAKE WELL MEMORIAL

A four-day celebration of the seventy-fifth anniversary of petroleum in the United States will be held at Titusville, Pa., August 24 to 27, when Drake Well Memorial Park will be dedicated. The 30-acre tract, purchased with funds contributed principally by members of the American Petroleum Institute, surrounds the location of the Drake well completed Saturday, August 27, 1859.

The principal ceremony of the four-day Diamond Jubilee of Oil will be the transfer to the Commonwealth of Pennsylvania by Axtell J. Byles, president of the Institute. Secretary Ickes, oil administrator, also will be invited to deliver an address.

Cargo of Texas Gasoline on Way to West Coast Is Disturbing Marketers in California District

By L. P. STOCKMAN
Staff Correspondent, California Fields

LOS ANGELES, Calif., Apr. 7.—Although it is not generally known to the industry at large, California marketers are deeply concerned with respect to future gasoline prices in Pacific Coast territory, due to the importation of another cargo of Texas gasoline now en route in the tanker Papoose. This vessel lifted 68,000 bbls. of gasoline at Houston, Tex., on March 27 and should arrive in San Francisco about April 17. After discharging approximately half of the cargo at Richmond, in the San Francisco Bay region, the vessel will proceed to Tacoma, Wash., where the remainder will be discharged. The anxiety of marketers is due to past experiences as similar importations have wrecked the gasoline price structure on several occasions. During 1933 a cargo of Texas gasoline was discharged in Pacific Coast territory in July and another in September. Late in 1932 a similar cargo was discharged at Tacoma, Wash., and the resulting competitive market drove gasoline prices down to almost the lowest level ever reached in the Pacific Northwest. This unfavorable price structure existed until well up into 1933 with the result that California marketers sustained serious losses.

Resumes Purchases

Union Oil Co., recognizing the inherent obligation of refiners to afford operators in the Playa Del Rey Field an outlet for current production, has resumed the purchase of crude oil on a temporary basis. Union suspended day to day purchases in the Playa Del Rey Field on March 20 when other major operators refused to share the burden but resumed purchases on April 3. Union has been buying all oil offered at Dey Rey since January 1. Unable to induce other marketers to absorb a prorata share, Union reluctantly terminated all contracts until some relief could be obtained. Most of the major companies have tentatively agreed to participate in future purchases in order that all operators, conforming with curtailment, will be able to dispose of current production at posted prices. Independent operators in the Playa Del Rey and Long Beach Fields, who were left holding the sack by termination of purchase contracts, have been disposing of production at spot prices but this has been extremely unsatisfactory as the going price is usually from 25 to 40 cents per barrel below prices paid to operators fortunate enough to have valid contracts designating payment of posted prices for a stipulated period of time.

Crooked Holes

Early settlement of the crooked hole problem involving operators in the Huntington Beach Field of Los Angeles Basin is expected to materialize within the next few weeks due to the establishment of a deadline by Director of Finance Roland Vandegrift. Within the past week or so state officials have filed an omnibus suit whereby the entire group of operators are made defendants and this action is expected to result in an early adjudication of the perplexing problems that have confronted operators as a result of tideland exploitation in the Huntington Beach Field. For the most part, operators in this area are disposed to effect settlement with the state provided that the commonwealth is fairly reasonable with respect to the royalties due the state. The director of finance has given operators until April 15 to make their peace with the administration and, according to Assemblyman Craig of Brea, this can be done by agreeing to pay the state a royalty of 12½ per cent of all past and future production, but it revives the question as to the equity of lessors on whose property the tideland wells are located. The question now is whether operators should pay the state a royalty of one-eighth and the lessor an additional royalty or whether the landowner is entitled only to a fair rental value for the use of surface rights. If the state proves its claim to oil and gas below state tidelands it will adversely affect the equity of landowners on whose property the derrick and equipment of crooked holes are located. It appears probable this complex problem will eventually be carried up to the higher courts.

Grand juries in the several oil producing counties of the state are reported to have secretly investigated whipstocking and crooked hole drilling during the past few weeks. Some definite action may be recommended later. Some action is also expected to be taken at the session of the legislature early in Jonuary, 1935. At the last session the legislature proposed to prohibit premeditated diversion of holes from the vertical but the bill was killed in committee.

Curtailment Violators

Administrator Ickes has issued orders to prosecute violators of curtailment in California and additional complaints will be filed in California courts within the next fortnight. Just at present, representatives of Umpire Pemberton and the administrator are concentrating their activities in the Huntington Beach and Mountain View Fields. Several weeks ago Umpire Pemberton warned operators drastic action would be undertaken by the administrator and a large number of investigators is now looking over California fields. These investigators swooped down on Huntington Beach late this week and began checking the source of production and destination of each and every truck leaving the field. This work, according to an announcement of Umpire Pemberton, is being done with the full authority of Administrator Ickes and the umpire warns drivers of all trucks or other oil conveyances to refrain from offering any forcible resistance. The announcement also mentions that "I want all oil truck drivers in and near Huntington Beach to know that the inspectors are going to follow them and stop and interrogate them if necessity demands."

Inglewood Deep Zone

Deep zone exploitation in the Inglewood Field became a reality a few days ago when Pacific Western Oil Co. completed two new wells in the lower horizon. This is the first tangible evidence that immediate aggressive deep zone exploitation is contemplated, although Standard and Associated began initial operations a week or so ago. Associated recompleted No. 2 Vickers, a deep zone well that had been shut in for several years but it failed to hold up and necessitated a cleanout job. Standard is putting the finishing touches on a new rig for No. 27 on Vickers lease No. 1 and should therefore begin making hole in the near future. Texas Co. and Shell have not yet started actual work but will undoubtedly begin rig construction for new wells very soon.

The statement that operators will probably begin aggressive deep zone exploitation does not mean that operators will begin unrestricted drilling but is rather meant to convey that no time will be lost in getting under way now that the drilling program has been approved by the umpire and the administrator. Under the terms of the approved program covering deep zone development, operators will be allowed to drill only the number of wells specified in the agreement. This program, unlike most others, lists the exact number of wells each operator will be permitted to drill during 1934 and consequently operators are anxious to begin production activities at the earliest possible moment. Pacific Western's two new completions were No. 16 Cone and No. 16 Rubel. The former showed an initial daily production of 420 bbls. from 2,625 feet while the latter came in flowing 766 bbls. per day from 2,900 feet. Production of both may build up somewhat after they have been on production for another few days as they are really just getting under way.

Potential Increased

Potential production of California was stepped up 6,240 bbls. per day on April 1, bringing the new potential from 1,206,175 bbls. to 1,212,415 bbls. Present potential is substantially in excess of same data last year due principally to additional drilling in the Kettleman North Dome Field. Simultaneously with the increase in the state's potential on April 1 the administrator increased the allowable quota from 453,900 bbls. per day which prevailed during March to 462,500 bbls. which operators will be allowed to produce during the month of April. A further increase is expected to be made during the next several months to take care of normal demand during the summer season.

San Joaquin Valley fields showed a substantial increase in potential production, the new potential being 619,360 bbls. per lay as compared with 615,785 bbls. per day on March 1. The coastal fields were assigned a new potential of 130,450 bbls. per day as compared with 128,270 bbls. during March, while Los Angeles Basin fields were stepped up from 462,120 bbls. to 462,605 bbls. There was not much change in the potential of Los Angeles Basin fields during the past month but with additional completions expected in the Inglewood, Dominguez, Montebello and other fields it is likely the potential 60 days hence will be somewhat larger.

Kettleman Hills

The Kettleman North Dome Association chalked up two new completions in the North Dome during the week and should finish two more potential producers within 15 days. Kenda's new wells were No. 78-20J and No. 41-43J, both in the Huffman section. The former was brought in flowing 2,470 bbls. of 30.3 gravity oil per day from 8,640 feet while the latter was finished flowing 2,470 bbls. of 30.7 gravity oil per day from 8,636 feet after the hole had been completed with a 6⅝-inch liner including 985 feet of perforated. Neither well, in keeping with the policy of not attempting to establish large potentials, was allowed to produce to the maximum.

Union Oil Co., not satisfied with the present status of No. 1 Lillis-Welsh of the North Kettleman Oil & Gas Co., has completed a deal with Ed McAdams whereby the Union will undertake to redrill and deepen this well to the Eocene. No. 1 Lillis Welsh is bottomed at 10,944 feet but is mechanically imperfect at approximately 9,700 feet where several attempts have been made to sidetrack a fish and begin making new hole. Union took charge of the well early this week and is preparing to resume work. If it succeeds in making new hole without running back into the original hole it is the present intention to land a new string of pipe just above the point at which the Eocene is expected to be picked up. This well may bear watching because if Union can drill below 10,000

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	March 25		March 18			
	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Intercoastal-domestic—						
Fuel oil	81,632	11,662	498,201	71,172	3,808,154	379,473
Diesel and gas oil	207,345	29,621	.....	.....	700,489	926,394
Gasoline	163,261	23,323	251,592	35,942	1,223,871	1,512,402
Kerosene	45,544	6,506	.....	.....	348,665	411,076
Other finished oil	.....	.....	.....	.....	.....	30,635
Other unfinished oil	.....	.....	.....	.....	.....	72,584
Foreign exports—						
Crude oil	149,331	21,333	111,400	15,914	1,715,324	1,630,313
Fuel oil	566,726	80,961	26,267	3,752	2,718,137	1,595,949
Diesel and gas oil	116,737	16,677	24,587	3,512	963,032	793,062
Gasoline	129,963	18,566	109,195	15,599	1,001,749	1,200,875
Kerosene	7,950	1,136	.....	.....	234,893	485,674
Other finished oil	3,529	504	.....	.....	3,529	.....
Other unfinished oil	.....	.....	.....	.....	34,363	.....
Coastwise-domestic—						
Crude oil	127,343	18,192	96,561	13,794	1,354,675	3,099,276
Fuel oil	478,026	68,289	134,440	19,206	2,990,201	2,718,179
Diesel and gas oil	67,547	9,650	2,844	406	203,085	407,166
Gasoline	290,391	41,484	168,546	24,078	2,281,155	2,758,553
Kerosene	10,324	1,475	933	90	40,152	56,157
Naphtha distillates	.....	.....	.....	.....	.....	27,651

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Diesel and gas oil	.....	.....	.....	.....	313,695	280,531
Gasoline	.....	.....	.....	.....	72,625	239,016
Kerosene	37,123	5,303	79,450	11,350	197,498	311,855
Lubricants	.....	.....	.....	.....	8,310	8,250
Foreign exports—						
Crude oil	.....	.....	2,926	418	445,928	320,286
Fuel oil	17,686	2,527	20,142	2,892	214,315	190,939
Diesel and gas oil	90,672	12,953	74,810	10,687	496,062	300,145
Gasoline	27,019	3,860	303,782	43,397	896,708	1,152,418
Kerosene	.....	.....	80,533	10,505	212,195	167,050
Lubricants	.....	.....	14,047	2,007	35,507	38,356
Other unfinished oil	.....	.....	.....	.....	.....	4,881
Coastwise-domestic—						
Fuel oil	188,908	26,987	.....	.....	884,677	785,253
Diesel and gas oil	34,767	4,967	1,477	211	87,029	142,550
Gasoline	198,310	28,330	208,457	29,780	992,948	890,606
Kerosene	6,893	998	2,876	411	34,580	43,490

feet without running back into the old hole it stands an excellent chance of developing commercial production and opening another new horizon for development.

In the Middle Dome of Kettleman Hills, Standard killed its No. 6-29V several days ago to correct a water problem. A survey indicated water is entering the hole at 7,773 feet and possibly below this depth. This well, bottomed at 8,406 feet, ran into mechanical trouble previous to completion and the company was never able to recover the pipe and finish the well as it would like. Middle Dome Corp., which will eventually come into possession of several wells in the Middle Dome of Kettleman Hills, picked up the top of the brown shale in No. 58-19V at 5,400 feet and preparations are under way to land and cement a string of 13⅜-inch casing at about 5,435 feet. Actual drilling of this well is being conducted by Petroleum Securities and this company will retain control until the production secured has entirely liquidated drilling costs at which time it will automatically pass into control of Middle Dome Corp.

Mountain View

Although representatives of Administrator Ickes are expected to file complaints against several operators in the Mountain View Field of Kern County, this action will not in any way diminish the interest taken in the field. Progressive operators are insistent that all operators be compelled to conform with curtailment and consequently are sympathetic with efforts to enforce proration as they realize that if some are permitted to overproduce it will reduce the ultimate recovery. Umpire Pemberton, who has been trying to enforce proration with impartiality, now has ample support to back his curtailment orders. Within a few months California will be strictly adhering to curtailment unless some unforeseen development occurs as operators will begin to realize with a few more convictions they are playing with dynamite. The umpire and the administrator have the sympathetic support of more than 95 per cent of California operators in their attempts to make proration effective.

Mohawk Petroleum Co.'s No. 1 McKeehan, finished last week in addition to extending the proved limits of the Mountain View Field about a mile northwest, has greatly stimulated interest in the future possibilities of the field. This has not yet been evidenced by any tangible action although Standard has filed a request for permission to drill another well in the northwest section and Union and several other operators are seriously considering the advisability of immediately prosecuting additional drilling. A total of eight wells has been finished in the Mountain View Field in addition to two small pumpers completed in Edison area slightly northeast of the main part of the field. There appears to be considerable doubt whether the wells of Monterey Exploration Co. in the Edison section are in the Mountain View Field as there is no similarity in either the quantity or quality of oil produced. The Edison or Sivert district has all the aspects of being separated from the main field by a fault.

Dominguez

Shell Oil Co. added two new wells to its producers in the Dominguez Field during the week although one of them may require a little further corrective work. This well was No. 52 Reyes which was finished yesterday and consequently may possibly clean up after it has been on production for another day or two. No. 52 Reyes was brought in flowing at the rate of 1,450 bbls. of 29.4 gravity oil per day from 5,330 feet. Shell's No. 37 Reyes, which was recently redrilled and deepened to the lower zone, was returned to production flowing 1,640 bbls. per day from 4,553 feet after the hole had been finished with a combination perforated liner.

Three wells were completed in the Long Beach Field of Los Angeles Basin although none of them showed large production. State Co.'s No. 2 Butler, bottomed at 4,697 feet, was brought in on a compressor doing 196 bbls. of 26.6 gravity oil per day while Myrwane Petroleum Corp.'s No. 1 Signal was finished pumping 177 bbls. of 26.2 gravity oil per day from 3,877 feet. Shell Oil Co., discoverer of the Long Beach Field, finished No. 10 Andrews pumping 144 bbls. of exceptionally clean 28.3 gravity oil per day from 3,850 feet. This is one of the cleanest wells finished at Signal Hill in several weeks. In the West Coyote Field, where Standard has been conducting a normal drilling program, the company is expected to finish two new wells in the immediate future.

Lost Hills-Belridge

In the Lost Hills Field, Associated Oil Co. has cored a few feet of oil sand that gives rather fair cuts but it is doubtful if the company could develop production at the present depth. As evidence of this the company is still drilling ahead in No. 1 Williamson. General Petroleum Corp. is rotating in No. 1 Berry in a sandy shale slightly below 10,800 feet and while some encouraging gas showings have been logged the possibility of developing commercial oil production appears to be rather remote although it must be remembered the situation could be changed over night if the company should encounter a good oil sand. This well may possibly result in the establishment of a new deep drilling record. Union's No. 18 Belridge is getting quite deep and may possibly be finished in the Eocene before drilling operations are concluded.

In the Mount Poso Field of Kern County, the General Petroleum completed No. 9 Heisen pumping 290 bbls. of 16.4 gravity oil per day from 1,729 feet after the hole had been plugged back from 1,763 feet due to the coring of a gray sand. Union's No. 10 S.&M. in this field is being prepared for a production test within the next several days and the outlook is favorable for completion of a well capable of pumping approximately 250 bbls. per day. No. 9 S.&M. developed a little water and sand trouble since completion a few weeks ago and the company is cleaning out the hole at the present time. Golden Bear Oil Co. is working on what appears to be a rather promising well in No. 4 Grimes in Section 32-27-27 and it would not be at all surprising if the company finished an excellent producer as the hole, during the course of work, has been showing considerable gas pressure. In the Midway-Sunset Field of Kern County, operators are showing more inclination to resume drilling after a suspension of several years duration and it appears quite probable that this field will continue to show a normal amount of drilling during the next several months. Honolulu Oil Corp. by completing several good wells has stimulated interest in the area adjacent to Section 14-32-24 and we may anticipate further development in this section of the field.

Michigan Fields

(Continued from Page 82)

No. 1 Jane Pinder, SW SW Section 31-15n-16w, Elbridge Township, is about 1,800 feet with the Traverse anticipated in another 100 feet. No. 1 Mrs. Cozy Ackerman, NW NW SW, same section, which failed to strike commercial pay in the upper Traverse two weeks ago, is being carried to the Dundee by C. A. Welsh and H. S. Sayles, of Hart, and others, who bought out the controlling interest of H. C. Nelson of Muskegon in about 50 leases and a number of the more productive wells in the field.

New Permits

Eight of 15 permits for new locations issued by the oil and gas division of the state conservation department were for wells to be drilled in the Porter Pool, Midland County. The new Porter locations include five Pure Oil Co. wells as follows: No. 3-A Iva E. Bond, SE SE SW Section 7-13n-1w; No. 1-B Iva E. Bond, SE SE SE Section 12; No. 2 Everett Kleinhans, NW SW NE Section 20; No. 9 W. Neitzke, SE NW SE Section 21; No. 12 W. Neitzke, SW NW SE Section 21, and No. 2-B J. B. Rayner, NW NW NW Section 18. Three other new Porter Township locations are: Columbia Oil & Gas Co. and Gordon Oil Co.'s No. 2 Minnie Hale, NE SW SW SW Section 21 and No. 3 Minnie Hale, SW SW SW Section 21, and Strange Oil & Gas Co.'s No. 6 Sam Walley, NE SW SE Section 16.

Two new Montcalm County tests, one in Home Township, where a successful upper Traverse producer was completed several weeks ago, and the other in an untested area, also are among the week's permits: Theodore Oil Co.'s No. 1 John Sherwin, SW SW SW Section 13-12n-6w, Home Township, and Daily Crude Oil Co.'s No. 1 O. Blair, SW SE SE Section 11-11n-5w. Columbia Oil & Gas Co.'s No. 1 Albert J. Dutmers, SW SE NW Section 23-13n-8w, Hinton Township, Mecosta County; Pure Oil Co.'s No. 2 Joe Novak, NE NE NE Section 18-14n-2w, Greendale Township; Friesner and Self's No. 1 Alan H. Schneider, SW SW SE Section 17-22n-2e, West Branch Township, Ogemaw, and Chandler, trustee's No. 1 G. E. Bricker, SE Section 11-8s-1w, Wright Township, Hillsdale County.

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
Clayton, G. L., No. 1 Clearwater, Los Angeles Co.	31- 3-12	5,540	sd. sh. drilling
Pacific Dev. Co., No. 1 Watts, Los Angeles Co.	16- 3-13	3,879	suspended
Oklahoma Oil Corp., No. 1 Hermosa, Los Angeles Co.	31- 2-14	....	material
Dominguez Oil Co., No. 1 Dominguez, Los Angeles Co.	34- 3-13	4,000	sd. sh. drilling
Quinn, J. B., No. 1 Dominguez, Los Angeles Co.	3- 4-13	4,121	sd. sh. drilling
Mutual Oil Co., No. 1 Dominguez, Los Angeles Co.	3- 4-13	4,625	sd. sh. drilling
Kelly & Son, No. 1 Torrance, Los Angeles Co.	7- 4-13	6,435	suspended
Wehrman, J. K., No. 1 San Pedro, Los Angeles Co.	14- 5-14	1,597	fishing D/P
Nudson, T. T., No. 1 Inglewood, Los Angeles Co.	17- 2-14	1,911	cleaning out
Pacific Western, No. 16 Inglewood Deep, Los Angeles Co.	8- 2-14	2,625	O.S. cemented
Scientia Oil Co., No. 1 Inglewood, Los Angeles Co.	7- 2-14	rig	suspended
Standard Oil Co., No. 1 Inglewood Deep, Los Angeles Co.	7- 2-14	rig	rigging up
Kieps Oil Co., No. 1 Inglewood, Los Angeles Co.	17- 2-14	rig	rigged up
Wilshire, No. 2 Potrero Deep, Los Angeles Co.	27- 2-14	5,593	sd. sh. drilling
Community Oil Co., No. 1 Montebello, Los Angeles Co.	34- 1-11	7,180	sd. sh. drilling
Community Oil Co., No. 2 Montebello, Los Angeles Co.	34- 1-11	....	material
Universal Consd., No. 2 Montebello Deep, Los Angeles Co.	5- 2-11	6,590	suspended
Universal Consd., No. 3 Montebello Deep, Los Angeles Co.	5- 2-11	7,475	gr. sd. drilling
Texas Co., No. 1 Montebello Deep, Los Angeles Co.	6- 2-11	5,574	sd. sh. drilling
Standard, No. 1 Montebello Deep, Los Angeles Co.	6- 2-11	4,111	sd. sh. drilling
St. Helens, No. 1 Montebello Deep, Los Angeles Co.	6- 2-11	1,276	sd. sh. drilling
Frontier Oil Co., No. 1 Pico, Los Angeles Co.	7- 2-11	rig	rigging up
Midfield Oil Co., No. 1 Pico, Los Angeles Co.	19- 2-11	2,015	resume work
Rex Anglin Dev. Co., No. 1 Los Nietos, Los Angeles Co.	29- 2-11	150	suspended
Eldorado Pet., No. 1 Puente, Los Angeles Co.	30- 2- 9	3,116	suspended
Barstow Oil Co., No. 1 Saugus, Los Angeles Co.	35- 5-16	2,136	suspended
International Dev. Co., No. 1 Saugus, Los Angeles Co.	34- 5-16	rig	suspended
Alexander, W. L., No. 1 Sunland, Los Angeles Co.	7- 2-14	1,020	hd. sd. drilling
Black Eagle Oil Co., No. 1 Huntington, Orange Co.	tideland	3,962	cemented
Nuall Co., No. 1 Newport, Orange Co.	29- 6-10	6,419	hd. sd. drilling
Recovery Oil Co., No. 1 Sunset Beach, Orange Co.	16- 5-11	3,400	suspended
Superior Oil Co., No. 1 Sunset Beach, Orange Co.	19- 5-11	5,850	sd. sh. drilling
Placentia Dev. Co., No. 1 Placentia, Orange Co.	31- 3- 9	4,531	redrilling
Mid-Rich Drlg. Co., No. 1 Atwood, Orange Co.	26- 3- 9	360	suspended
Rubens, Sy., No. 1 Atwood, Orange Co.	19- 3-19	3,368	rig to pump
Bardeen Pet., No. 1 Coyote, Orange Co.	12- 3-10	3,280	hd. sd. drilling
Great American Pet., No. 1 Chino, San Bernardino Co.	18- 2- 8	2,710	sd. sh. drilling
Great American Pet., No. 2 Chino, San Bernardino Co.	18- 2- 8	2,600	suspended
Tehama Pet., No. 1 Santa Ana Canyon, San Bernardino	33- 2- 8	1,295	cemented
San Diego Pet. Co., No. 1 Chula Vista, San Diego Co.	32-18- 2	141	sd. drilling

IMPORTANT NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
General Pet., No. 9 Capitan, Santa Barbara Co.	32- 5-30	rig	rigging up
Shell Oil Co., No. 2 Capitan, Santa Barbara Co.	32- 5-30	1,769	plug 1,771 ft.
Lincoln Drlg. Co., No. 3 Summerland, Santa Barbara Co.	21- 4-26	2,803	suspended
Dietzmann, J., No. 1 Summerland, Santa Barbara Co.	16- 4-26	3,829	plug 3,666 ft.
Fairview Oil Co., No. 1 Purisima, Santa Barbara Co.	18- 7-34	2,186	hd. sd. drilling
Barnsdall-Rio Grande, No. 8 Doty Elwood, Santa Barbara	15- 4-29	4,868	fishing D/P
Signal O. & G. Co., No. 2 Elwood, Santa Barbara Co.	tideland	5,125	coring ahead
East Elwood Pet. Co., No. 1 Elwood, Santa Barbara Co.	14- 4-29	rig	rigging up
Cuyama Oil Co., No. 1 Cuyama, Santa Barbara Co.	12-10-27	4,002	suspended
Union, No. 1 Santa Maria, Santa Barbara Co.	19-10-33	1,803	cemented
Richfield, No. 3 Rincon fee, Ventura Co.	17- 3-24	2,557	suspended
Woodrow Pet., No. 1 Rincon, Ventura Co.	4- 3-24	7,612	sidetracking
Continental, No. 3 Miguelito, Ventura Co.	23- 3-24	....	material
Hancock Oil Co., No. 1 Fillmore, Ventura Co.	13- 4-19	3,357	pumping test
Oil Ridge Oil Co., No. 1 Fillmore, Ventura Co.	1- 4-19	642	cleaning out
Oak Mountain Oil Co., No. 1 Sespe, Ventura Co.	1- 4-20	2,515	will deepen
Kneiper & Atha, No. 1 Bardsdale, Ventura Co.	7- 3-19	1,710	suspended
Williamson & Donaher, No. 1 Simi, Ventura Co.	36- 3-18	790	fishing
Dabney, H. R., No. 1 Simi, Ventura Co.	22- 2-18	1,505	suspended
Midlands Pet., No. 1 Ojai, Ventura Co.	9- 3-23	7,830	redrill 7,324
Prop. Service Corp., No. 1 Ventura, Ventura Co.	24- 3-23	...	building road
Laing & Jacobs, No. 1 Shiells, Ventura Co.	32- 4-19	721	suspended
Kirk, W. A., No. 1 Sulphur Mountain, Ventura Co.	21- 4-22	1,954	br. sh. drilling
Mosher, J. W., No. 1 Santa Paula, Ventura Co.	22- 4-21	1,860	br. sh. drilling
Las Posas Pet., No. 1 Las Posas, Ventura Co.	22- 3-20	6,135	suspended
International Oil Dev., No. 1 Conejo, Ventura Co.	33- 2-20	3,060	hd. sd. drilling
Hub Pet. Co., No. 1 Gould Hills, Kern Co.	22-29-21	6,840	suspended
Shell Oil Co., No. 1 Gould Hills, Kern Co.	21-29-21	3,473	sd. sh. drilling
Standard Oil Co., No. 1 McKittrick, Kern Co.	15-30-22	rig	rigged up
Casa Mira Oil Co., No. 1 Belridge, Kern Co.	29-28-20	4,982	cleaning out
General Pet., No. 1 Belridge, Kern Co.	30-28-21	10,815	br. sh. drilling
Union Oil Co., No. 18 Belridge, Kern Co.	36-27-20	6,150	sd. sh. drilling
Wrenn, J. J., No. 1 Antelope Plain, Kern Co.	32-25-17	1,701	suspended
North American, No. 1 Jasmine, Kern Co.	25-25-27	2,104	sd. sh. drilling
Associated, No. 1 Lost Hills, Kern Co.	2-26-20	7,841	sd. sh. drilling
Inland Pacific, No. 1 Semi-Tropic, Kern Co.	29-25-21	1,581	sd. sh. drilling
Howells Bros., No. 1 Round Mountain, Kern Co.	32-28-29	2,180	hd. sd. drilling
Semaphore Oil Co., No. 1 McVan, Kern Co.	14-27-27	494	sd. sh. drilling
Shafter Oil Co., No. 1 Shafter, Kern Co.	8-28-25	3,194	sd. sh. drilling
Ohio Oil Co., No. 1 Buena Vista Lake, Kern Co.	31-31-26	6,460	sd. sh. drilling
Caravel Pet., No. 1 Edison, Kern Co.	19-30-30	1,440	resume work
Alta Oil Co., No. 1 Union Avenue, Kern Co.	6-30-28	6,457	swabbing
Hall, C. C., No. 1 Mountain View, Kern Co.	25-30-28	rig	rigged up
Severns Drlg. Co., No. 1 Mountain View, Kern Co.	24-30-28	5,250	sd. sh. drilling
Union Oil Co., No. 1 Mountain View, Kern Co.	15-30-28	5,787	cleaning out
Hogan Pet. Co., No. 4 Mountain View, Kern Co.	29-30-29	780	sd. sh. drilling
Labadie, E. L., No. 1 Mountain View, Kern Co.	29-30-29	5,888	plug 5,855 feet
Standard, No. 1 Mountain View, Kern Co.	19-30-29	5,200	will test
Commanche Oil Co., No. 1 Commanche, Kern Co.	15-32-29	2,731	sd. sh. drilling
Badger Oil Co., No. 1 Wheeler Ridge, Kern Co.	31-11-19	5,851	gr. sd. drilling
Russ Oil Synd., No. 1 Kingsburg, Fresno Co.	20-12-11	4,044	suspended
Bergman, Harry, No. 1 Kingsburg, Fresno Co.	12-12-11	5,195	sd. sh. drilling
Graham & Loftus, No. 1 Raisin City, Fresno Co.	20-15-18	5,906	suspended
Emerich Oil Co., No. 1 Mendota, Fresno Co.	35-13-13	4,575	suspended
Western Gulf, No. 1 S. P., Fresno Co.	15-17-15	7,893	formation test
Hogan Pet. Co., No. 1 Joaquin Ridge, Fresno Co.	28-20-16	6,605	suspended
Kent & McDonald, No. 1 Carrizo Plains, San Luis Obispo	3-22-22	3,830	suspended
Farrel Pet., well No. 1, San Luis Obispo Co.	18-31-12	1,095	cleaning out
Willet Oil Co., No. 2 Cholame, San Luis Obispo Co.	10-25-15	rig	rigged up
Commonwealth Consd. Gas Co., No. 1 Tulare Lake, Kings	31-22-20	1,250	bl. sh. drilling
Tulare Basin Oil Co., No. 1 Tulare Lake, Kings Co.	2-23-19	1,200	rebuild rig
Douglas, J. M., well No. 1, Monterey Co.	36-22- 9	2,596	br. sh. drilling
Oakdale Oil Co., No. 1 Oakdale, Stanislaus Co.	5- 2-10	4,760	hd. sd. drilling
Pacific Northern Oil Co., No. 1 Guinda, Yolo Co.	23-12- 3	6,680	hd. sd. drilling
Buttes Oilfields Co., No. 1 Marysville, Sutter Co.	35-16- 1	2,731	gas—shut in
Buttes Oilfields Co., No. 2 Marysville, Sutter Co.	35-16- 1	4,320	suspended
Milham Exploration Co., No. 1 Tracy, San Joaquin Co.	5- 4- 5	2,621	hd. sd. drilling
Orland Oil Synd., No. 1 Orland, Tehama Co.	31-23- 3	3,790	suspended
Mid-Valley Oil Co., No. 1 Orland, Tehama Co.	14-24- 3	....	location
Tehama Pet., No. 1 Murdock, Glenn Co.	10-22- 5	100	suspended

Hobbs Extension Well Makes 12,600 Barrels; Midway Dome Test Good for 350 Barrels

By TOLBERT R INGRAM
Staff Correspondent, Rocky Mountain Area

DENVER, Colo., Apr. 9.—Noble Brothers' No. 1 Shell-State, which extends the Hobbs Pool in New Mexico a half mile to the west, made 12,600 bbls. in 24 hours on a company gauge after being treated with acid. Operations in the Eunice Pool were increased to four when Gypsy Oil Co. made a new location. The Repollo Oil Co. released a location in the Jal Pool. Operations in Colorado are becoming more active with several new areas to be tested. Texas Co. will make a structural test on the King Mountain Dome in Routt County and the Colorado Oil Refining Co. will drill the Granby structure. Salt Creek Producers Association has sold its stored oil from Salt Creek to Standard Oil Co. of Indiana.

The Midway Dome in Wyoming redeemed the faith of its backers when Midway Oil Corp.'s No. 1 Boyer came in for 350 to 400 bbls. per day. Ohio Oil Co. completed a 32,000,000-foot gasser in Carbon County. A third test on the Shawnee structure in Converse County is getting under way. Drilling has been resumed in the Pedro Pool in Weston County, which produces lubricating oil from shale at 400 feet. Plan for unit operation of Garland Dome is meeting with opposition from holders of acreage not within the agreement.

The Cut Bank Field in Montana gives promise of being extended more than a mile west in Dunstall's No. 1 Kennerly, which is showing for a producer. One average well was completed and two new locations were made.

The Cane Creek structure in southeastern Utah is to have a test near the well which started a big campaign in that territory in 1927.

NEW MEXICO

Lea County

Noble Brothers' No. 1 Shell-State, SE cor. NW Section 24-18-37, which extends the proven area of the Hobbs Pool a half mile to the west of Gypsy Oil Co.'s No. 1 Graham, in the northwestern part of the field, was completed as a big producer and made 12,600 bbls. of oil and 12,000,000 feet of gas first 24 hours on a company gauge. This result was shown after the well had been treated with 1,000 gallons of acid. Before being treated it gauged 120 bbls. per hour, or at the rate of 2,880 bbls. a day. The total depth is 4,188 feet and the elevation is 3,669 feet. The 7-inch was cemented at 3,930 feet. This well is interesting not only on account of the large output following the treatment with acid, but due to its location in the only part of the field where the water line has not been established by drilling. Shell Petroleum Corp., Texas Pacific Coal & Oil Co. and Gypsy Oil Co. hold the offset acreage and Amerada and Skelly have the 80-acre tract to the west of the tract upon which the well is located.

The only other active operation in the Hobbs Pool is Empire Gas & Fuel Co.'s No. 4 Fowler, NE SE NE Section 31-18-38, drilling at 2,950 feet in lime with a show of gas at 2,797-2,805 feet.

In the Lea area, Texas Co.'s No. 2-B Lynch, C SE SW Section 27-20-34, north of the Lea Pool, is rigging up to drill deeper from 3,670 feet, at which depth it gauged 75 bbls. in 11 hours and 12 bbls. in the next 20 hours. Same company's No. 1 Lea, SW cor. NW Section 14-20-34, is drilling at 2,015 feet in salt.

In the Eunice area, where three wells are drilling, another location was released this week, Gypsy Oil Co.'s No. 1 State, C SW SE Section 8-21-36. It is an offset on the south to Atlantic Oil Producing Co.'s No. 1-B State.

Continental Oil Co.'s No. 8-A No. 1 A. E. Meyers, C NE SW Section 8-21-36, cemented 9⅝-inch at 1,362 feet with 250 sacks and is waiting. Tide Water Oil Co.'s No. 2 Coleman, C NW NE Section 17-21-36, is moving in materials, and Atlantic Oil Producing Co.'s No. 2-B State, C NE SE Section 8-21-36, is drilling water well and rigging up rotary.

In the Jal area, a new location was released in Repollo Oil Co.'s No. 1 Elidia Stephens, SW cor NE Section 13-25-36. Texas Co.'s No. 2 Moberly, C NW SE Section 8-26-37, last week reported flowing 6 bbls. per hour from 3,400 feet, is averaging 103 bbls. of fluid per day, of which 18½ per cent is water. It probably will be plugged back to 3,360 feet. Barnsdall Oil Corp.'s No. 1 Forrest, NE SW SW Section 24-25-36, is preparing to core at 3,203 feet, in lime. Continental Oil Co.'s No. 24-A No. 1 Ascarate, C NW NE Section 24-25-36, is bottomed at 3,290 feet in lime, and was given two tests through the drill stem. At 3,192-3,250 feet it showed for 13,000,000 feet of gas per day and no oil. At 3,250-90 feet it showed for 1,909,000 feet of gas and oil rose 1,600 feet in the hole in 40 minutes. Empire Gas & Fuel Co.'s No. 1-B Lindley, C SE SW Section 13-25-36, is bottomed at 3,249 feet in lime and was given a drill stem test at 3,203 feet. It showed for 12,000,000 feet of gas, estimated, and no oil. Stanolind Oil & Gas Co.'s No. 29-B Farnsworth, C SW SW Section 7-26-37, is rigging up rotary.

Eddy County

Grayburg Oil Co.'s No. 5 Burch, C SW NE Section 19-17-30, Maljamar area, is bottomed at 2,760 feet in lime and reaming a crooked hole at 2,730 feet. It had a show of oil at this depth. Van Welch, Jr., and others' No. 2 State, SW NW NW Section 22-17-28, Artesia area, is drilling at 1,582 feet, and Pecos Valley Drilling Co.'s No. 1 McIntyre, NW NW Section 27-23-25, Dark Canon district, is shut down at 2,812 feet in gray lime.

San Juan County

Fred Barrett's No. 1 Hart, SW NW SW Section 11-29-11, Aztec district, is drilling at 1,745 feet and making some gas. Rio Grande Development Co.'s No. 2 Lanier, SE cor. NW Section 9-29-11, is drilling at 2,035 feet after making a water shutoff, and is believed near the top of the Mesa Verde.

COLORADO

Routt County

A structural test on the King Mountain Dome in southern Routt County in northwestern Colorado is scheduled to be drilled by Texas Co. as soon as road conditions will permit the moving in of equipment and supplies. This structure, located mostly in Townships 1n and 1s, Range 85w, has been known for a number of years and is covered with permits and leases. It lies to the southwest of the town of Tonopas, on the Denver & Salt Lake Railroad, and between Egeria Creek on the north and Sunnyside Creek on the south. Leases were assembled on the structure in 1929, but due to the depression, no deal was closed for a test at that time. Lately Texas Co. is reported to have entered into an agreement with the owners of leases and permits to start a test by August 1, 1934, but it is understood the plans provide for going ahead at once. The company has blocked about 4,000 acres of deeded land and 2,000 acres of government and state land. V. L. Board, vice president of Public Service Co. of Colorado, and Joseph C. Sampson, a Denver attorney, have transferred their state lease on 480 acres in the NW and S half, Section 36-1n-85, to Texas Co., and among the others who have entered into the agreement are the George Crossan estate, Frank Strutzel, Robert Charbonnell, Max Ewing and Mrs. E. H. Godfrey.

Grand County

Grand County, which lies to the east of Routt County, also is reported in line for a wildcat play this summer. One test is now drilling on the Dirt Creek structure in Interstate Oil & Refining Co.'s No. 1 Hinman, NE SE NW Section 11-2n-81, drilling at 1,810 feet and carrying 8¼-inch casing. It is believed to be bottomed near the top of the Frontier formation.

Contracts are reported signed between Colorado Oil Refining Co. and holders of leases and permits for the starting of a a test within the next few weeks on the Granby anticline between the towns of Granby and Hot Sulphur Springs, on the Denver & Salt Lake Railroad. The structure was discovered in 1928 by Dr. T. S. Lovering, of the U. S. Geological Survey during a co-operative survey by the Geological Survey and the Colorado Metal Mining Association and Bulletin 822-B was published on it. The anticline is described as a narrow fold with a northerly trend that has been traced for a distance of 15 miles.

Moffat County

Stanolind Oil & Gas Co.'s No. 32 Parkinson, Lot 6, NW Section 23-4n-92, Iles Dome, is drilling at 2,374 feet.

Larimer County

Eastman & Deininger's No. 1 Cement, NE SE NW Section 30-5n-69, Loveland district, a shallow test, is drilling at 465 feet, just below the base of the Muddy sand. This sand was topped at 416 feet and had shows of oil and gas through 200 feet of water in the hole. The water was encountered in shale above the sand at 408 feet, but the main body of the sand did not contain any water. The hole is being carried to the top of the next sand. The 8¼-inch is at 386 feet.

Colorado Producers, Inc.'s No. 1 Foster-Motz, SW SE SE Section 17-4n-69, Berthoud district, is shut down at 3,220 feet waiting for 4½-inch casing. The 6¼-inch is at 1,600 feet.

Fremont County

John Milner and others' No. 1, SW SE SE Section 30-18-69, Florence district, is drilling at 1,400 feet, with the 5-inch at 1,310 feet.

Archuleta County

Oil City Petroleum Co.'s No. 1, NE cor. Lot 3, SW Section 25-33n-2e, Price structure, which moved in last fall, but shut down for the winter, has spudded and set 14-inch surface pipe at 79 feet.

President T. A. Dines, of the Salt Creek Producers Association, Inc., in a letter to stockholders accompanying the annual report, states that the storage oil from the Salt Creek Field in which the company has a large interest has been sold to Standard Oil Co. of Indiana and will be paid for as run at the current market price. The balance sheet, which reflects the cost of the oil at the time it was put in storage, values the company's interest at $3,114,981. As of December 31, 1933, at current prices, the value was $2,123,285.

During 1933 the company through subsidiaries produced from the Salt Creek Field 2,093,074 bbls. gross. Excluding government, state and other royalties, and including certain other minor production, the net was 1,675,299 bbls., for which was received, including the receipts from casinghead gas, $1,162,132. This compares with 2,342,373 bbls. gross and 1,879,893 bbls. net for the year 1932, for which it received $1,253,301. The company's contract with the old Midwest Refining Co.'s successor, Stanolind Oil & Gas Co., for operating the properties without cost to the owner, expired the first of the year and the Stanolind company is now operating them under a new contract on a cost basis.

Park County

South Park Oil Co.'s No. 1 Milligan, NE cor. SE Section 13-8s-76, Jefferson district, is shut down at 3,228 feet on account of the storm. The ground is covered with 5 feet of snow.

WYOMING

Natrona County

The faith which H. Leslie Parker and associates have manifested in the Midway structure, 12 miles north of Casper, over many years in the face of numerous adverse factors, appears to have been justified in Midway Oil Corp.'s No. 1 Boyer, SW NE NE Section 23-35n-79, which is being completed as a producer estimated at 350 to 400 bbls. per day of light oil of 32 gravity. The structure has had several tests in the past, one of which was put down by the Texas Co. In 1930 Midwest Refining Co. drilled in the C NE NE Section 23 to the Dakota. This well, after numerous difficulties, was plugged back to the Wall Creek and has produced more than 100,000 bbls. from that horizon, although seldom has it done much better than 150 bbls. per day. In 1932 Sidney H. Keoughan and associates formed the Mutual Oil Syndicate and took over the 75 per cent interest of Midwest Refining Co., Salt Creek Producers Association and Mountain Producers Corp. A well was drilled to the northwest of the discovery and came in as a small producer. The syndicate then incorporated as Midway Oil Corp. and drilled two tests to the southwest of the discovery to the Shannon sand. The most favorable of these, No. 1 Boyer, SW NE NE Section 23, 600 feet to the southwest of the discovery, was then selected for another test to the second Wall Creek. This well is the operation which now is showing up most favorably. It topped the second Wall Creek at 5,142 feet and cored to 5,170 feet, at which depth it was unloaded and tested, swabbing 4 bbls. per hour on a 12-hour test. It then resumed coring and encountered a streak of bentonite at 5,170-73 feet. This formation was encountered in all the tests drilled and is a good marker. In this well it was found 15 feet higher than in the discovery. Immediately below the bentonite it found 17 feet of saturated sand at

5,173-90 feet and the hole filled 700 feet in two hours and continued to rise. It was given a test and swabbed 16 to 20 bbls. per hour. However, when the bailer was run it would go only to 76 feet off bottom on account of cavings. The hole is being standardized to clean out and complete and it is estimated the well is good for 350 to 400 bbls. per day. The 6⅝-inch is at 4,835 feet and a 5-⅛-inch liner at 4,750-5,115 feet, with the lower 80 feet perforated. The producing horizon showed no water.

Carbon County

Ohio Oil Co.'s No. 1 A. J. Hazlett, S NE NW Section 34-23-79, Allen Lake structure, which plugged back from 4,083 feet when the red beds were found tilted almost on end, was completed in the Sundance at 2,100 feet for 32,789,000 feet of gas with a rock pressure of 1,000 pounds, and testing better than 900 B.t.u. The 6⅝-inch was cemented at 2,010 feet. Rig is being moved to No. 1 Kanawha, SW NW NE Section 34, completed as a small gas well in the Morrison last year, to deepen to the Sundance. Another location will be selected for a test to the Pennsylvanian to be drilled later.

Earl W. Reeder, Inc.'s No. 1 Union Pacific, C SW SW Section 19-20-83, Overland Dome, is drilling slowly ahead at 4,400 feet and making about 10 feet per day. Some new oil is coming into the hole and the column now stands at 2,700 feet from bottom. Revised estimates place the objective Dakota at somewhere between 4,420 and 4,450 feet. Hughes Royalty Co.'s No. 1, NE NE Section 25-26-88, Mahoney Dome, which has been standing at 4,030 feet for some time, has again resumed, is repairing derrick, and after fishing out tools will be deepened 100 feet. Producers & Refiners Corp.'s No. 4 Wertz, SW cor. SE Section 7-26-89, Wertz Dome, is redrilling at 2,835 feet.

Converse County

E. B. Jones and others' No. 1 Pittman, C NE NW Section 27-32-69, Shawnee district, is drilling at 400 feet and their No. 1 State, SW Section 16-32-69, has rig completed. Wyoming Southern Oil Co. and S. H. Keoughan's No. 1 Brown, near C Section 27-32-69, is standing at 666 feet waiting for completion of Midway Oil Corp.'s well on the Midway Dome.

Niobrara County

Interstate Oil & Refining Co.'s No. 1 Morrell, NW NE SE Section 2-39-61, West Mule Creek, is shut down at 2,670 feet. This is a deep test to a sand in the base of the Minnelusa which was good for around 500 bbls. per day at 3,100 feet in Argo Oil Co.'s deep well on East Mule Creek. This horizon was expected about 700 feet higher on West Mule Creek, but so far it is not certain it has been encountered. The logs of the two tests do not correlate very well and some geological change has taken place between the two structures which is not apparent in the surface geology. The West Mule Creek test had around 500,000 feet of gas at 2,245-2,300 feet and more and better gas at about 2,500 feet, followed by a show of oil in a thin sand. Drilling will continue in the hope of finding the objective below the present depth.

Ed Shogren and others' No. 1 Olinger, NE NW Section 1-36-63, Old Woman Creek, is drilling at 940 feet, corrected depth.

Weston County

Williams Refining Co.'s No. 18 State, SW SE SE Section 36-46-63, in the Pedro Pool, to the southeast of the Osage Field, is spudding. This operation presents some interesting features. The state lease has been held by somebody for 14 years, a "merry succession of mussers," as our friend Frank Eaton describes it, but E. G. Williams, president of the Williams Refining Co., of Denver, is now producing it regularly and shipping the crude to his Denver refinery, where it is finished into a high grade medium motor oil of 26 gravity, an unusual grade from Wyoming crudes and which compares most favorably with Mid-Continent crudes, which make around 23 gravity motor oils. There is nothing spectacular about the development, but Mr. Williams has made a go of the Pedro operation. The oil is found in shale at 400 to 500 feet and contains almost no gasoline stock. It is shipped to the Denver plant by rail. Williams has been operating in Denver for the past 10 years and prior to getting hold of the Pedro Pool he made a specialty of refining crank case oil.

In the Osage Field one new operation is reported in Albert Jones' No. 6 Julius Bock, NW SW NE Section 21-46-63, which is spudding. C. L. Nichols' No. 4, SE cor. NW Section 8-46-63, is drilling below 100 feet, and the West Osage Oil Co.'s No. 3, SE NE Section 15-46-64, is rigged and ready to spud.

Park County

Frannie Oil Co.'s No. 2 Northern Pacific, SE SW SE Section 23-58-98, Frannie Pool, is drilling at 1,717 feet, and Stanolind Oil & Gas Co.'s No. 21 Rosenberg, NE SW NE Section 26-58-98, is drilling at 2,213 feet.

A plan for a unit agreement for the development and operation of 1,687 acres held by Ohio Oil Co. and Utah Southern Oil Co. on the Garland Dome has been submitted for approval to the Secretary of the Interior. The relative participation in the agreement is 46 per cent by Utah Southern company and 54 per cent by Ohio Oil Co. It provides for no additional drilling until the plan is approved. Objections to the agreement are said to have been filed with the secretary by holders of acreage on the structure on the ground that it does not take into consideration a much larger acreage than defined within the agreement. Among leaseholders and permittees who are not in the unit are Portland Associates, Inc., which has a producing well in the Madison lime, the Kinney-Coastal Oil Co., which has around 5,000 acres, and Allen Oil Co. Objectors claim the outer limits of the pool have not yet been established and that a much larger per cent of the acreage owned by the Government, from which it benefits the most, is excluded than included and that development plans should provide for the drilling of test wells to determine the limits of the pool. The Madison lime was found saturated for a thickness of around 600 feet in one of the three wells drilled on the structure to that formation.

Hot Springs County

California Petroleum Exploration Co.'s No. 1, NE SE NE Section 12-44-97, Waugh Dome, spudded and shut down.

Lincoln County

Superior-Wyoming Oil Co.'s No. 1-A Government, SW NE NW Section 3-26-113, LaBarge district, is drilling at 800 feet.

Sweetwater County

Mountain Fuel Supply Co.'s No. 2 Union Pacific, C SW SE Section 11-19-104, North Baxter Basin, cemented 12½-inch at 310 feet.

MONTANA

Glacier County

An important extension of the Cut Bank Pool westward appears imminent in Dunstall and others' No. 1 Kennerly, E NE NW Section 22-34-6w, in the Blackfeet Indian reservation and 1¼ miles west of the nearest producers. It topped the producing sand at 2,970 feet and was drilled to 2,978 feet. Three bailers full of oil were bailed from the hole when it began to cave and shut off the production. It is preparing to run a liner to 2,970 feet and cement. It looks as if it will make a good well.

One completion was reported in R. C. Jeffries' No. 1 Clark, C SW SW Section 3-34-6w, which pumped 70 bbls. the first 24 hours from 2,971 feet, total depth. The pay was found at 2,919-67 feet.

Two new locations were made in Texas Co.'s No. 2 Hinkle, 1,320 feet from the north line and 440 feet from the west line, Section 2-34-6w, which is digging cellar, and Montana Power Gas Co.'s No. 1 People's Unit, 2,640 feet from the north line and 1,260 feet from the east line, Section 14-33-5w. Last named is on a block of 1,280 acres which the owners have pooled under a unit agreement. This location is in the South Cut Bank area 5 miles southeast of the town of Cut Bank.

Alberta-Pacific Consolidated Oil Co.'s No. 3 Kiesel, NW cor. Section 11-34-6w, cemented the 7-inch at 2,870 feet with 100 sacks. A. B. Cobb's No. 2 Walburger, C NW SE Section 35-35-6w, recovered bailer and is drilling at 2,630 feet. The Dakota-Montana Oil Co.'s No. 1 Gilham, C Lot 4, Section 3-34-6w, is fishing at 1,620 feet, and Montana Headlight Oil Co.'s No. 2 Williams, C NE NE Section 11-34-6w, is drilling at 2,430 feet.

Montana Power Gas Co.'s No. 1 Neill, C NE Section 20-33-5w, topped the Colorado at 618 feet, set the 12½-inch at 635 feet with 50 sacks, and is resuming. Same company's No. 2 Seeba, E half NW Section 2-34-6w, is running the 8¼-inch at 2,838 feet. It had a show of oil at 2,831 feet.

Nadeau Brothers' No. 2 Van de Mar, SW NW Section 35-35-6w, topped the Colorado at 520 feet and cemented 12½-inch at 548 feet, and Par Oil Co.'s No. 2 Haines, SE cor. SW Section 2-34-6w, is fishing at 2,840 feet. Producers Development Syndicate's No. 1 Eniarson, SW NW NW Section 29-32-4w, is fishing at 2,040 feet, total depth.

Santa Rita Oil & Gas Co.'s No. 3 Cardwell, C Lot 2, Section 15-35-6w, is drilling at 355 feet, and its No. 1 Hardy, C Lot 5, Section 27-35-6w, is spudding at 175 feet. Same company's No. 2 Whetstone, C Lot 4, Section 22-35-6w, is drilling at 1,115 feet.

R. C. Tarrant's No. 2 Britton, SW NW SE Section 14-34-6w, recemented the 5-⅛-inch at 2,902 feet, and his No. 3 Britton, C NE SW Section 12-34-6w, topped the Colorado at 430 feet and cemented the 10-inch at 480 feet with 40 sacks.

Texas Co.'s No. 1 Antrim, C Lot 4, Section 27-35-6w, is drilling at 1,364 feet, and its No. 1 fee, Lot 7, Section 15-35-6w, is drilling at 1,540 feet. Same company's No. 1 Long, NW SW Section 23-35-6w, is drilling at 335 feet, and its No. 2 Purdy, C NE SW Section 35-35-6w, is drilling at 2,631 feet. Texas Co.'s No. 2 Yunck, SW SW Section 14-35-6w, is drilling at 900 feet.

Manning & Terry, drilling contractors, have taken over the Sheldon-Burden Drilling Co.'s properties and are entering Cut Bank Field on their own account. The firm has moved in 45 men from McPherson, Kans., for its rotary crews.

Teton County

R. C. Tarrant's No. 1 Porter, SE cor. NE Section 35-27-5w, West Pondera, was plugged and abandoned at 2,156 feet. It encountered the Ellis-Madison contact at 2,126 feet and had a show of gas at 2,126-34 feet, followed by a show of oil in hard sand at 2,140-54 feet. It ran into sulphur water at last named depth.

Toole County

C. Leonard Smith and others' No. 1 McDonough, NW cor. Section 17-33-2e, East Shelby district, near his No. 1 Mowat, recently completed for 10 bbls., is rigging up.

UTAH

The Big Six Oil Co., one of the pioneers in the search for oil in eastern Utah, is reported preparing to drill on the Cane Creek Dome south of Moab, on the Colorado River. The location will be a little to the northwest of and on the same side of the river, as Midwest Exploration Co.'s No. 1 Frank Shafer, NW NE Section 6-27-21, which in 1927 called attention to that area and resulted in a big leasing campaign followed by the drilling of numerous wildcats on the various Colorado River structures. No. 1 Shafer encountered 5,000,000 feet of gas at 2,028 feet followed by oil. The well made 150 bbls. natural and later made as high as 350 bbls. in 24 hours. The rig caught fire and was destroyed. The hole later was drilled to 5,000 feet and had other good shows of oil. Utah Southern

First Commercial Gas Well Completed in the Province of Saskatchewan

By VICTOR LAURISTON
Staff Correspondent, Canadian Fields

CHATHAM, Ontario, Apr. 7.—On the Saskatchewan extension of the Ribstone-Blackfoot structure, Lloydminster Gas Co.'s No. 1, LSD 6, Section 11-50-28w3, which has been deepening below 1,390 feet, blew into large production from the Blackfoot sand at approximately 1,800 feet. At last reports the production and pressure had not been determined but the well is thought good for several million feet a day.

Drilling operations were commenced late last fall by Lloydminster Gas Co. financed by Lloydminster capital. The location is less than a mile north of the town. The test set 15½-inch casing at 116 feet and 13⅜-inch at 230 feet. A fair gas show was struck at 1,140 feet, 10¾-inch being set on top of the gas sand. Several small shows were met with a larger flow, estimated 1,000,000 feet with 350 pounds rock pressure, in a stray sand at 1,390 feet. Drilling was continued to the original objective, the producing sand encountered on the Alberta end of the Ribstone-Blackfoot structure around 1,900 feet. The test is understood to have logged somewhat higher than wells on the Alberta end of the structure.

Drilling was handled by Charles Mills, who some years ago brought in the Duluth Syndicate's No. 1 discovery well in the Kinsella gas field in east central Alberta. Messrs. Wilson and Messenger were the other members of the crew. The well blew in with a roar that could be heard for several miles, and it took approximately 10 hours to get the gas under control.

Following the first substantial gas strike earlier in the year, Lloydminster Gas Co. secured a 20-year franchise to supply gas to the town of Lloydminster, conditional on developing a satisfactory gas supply. Construction of the 1-mile transmission line and the local distributing system will be undertaken in the near future, and it is expected gas will be delivered early this summer. The office of the company is at Lloydminster and the officers are: President, H. Rumble; vice president, F. H. Dunstan; secretary-treasurer, J. W. Brockhurst.

Lloydminster's No. 1 is the first commercial gas well to be completed in the province of Saskatchewan. In the past 20 years a number of isolated tests have been drilled in various parts of the province, but none has secured commercial oil or gas production, and the majority have not apparently been carried to conclusive depths. Most of the tests have been put down in an effort to secure

(Continued on Next Page)

Oil Co. took over the well and tried to recover the oil, but was unsuccessful. This test went through the beds of salt of immense thickness and the salt would choke up the lines when attempts were made to produce the well. It was believed the structures down the river were salt domes and tests were drilled out on the flanks, but these proved the area to be underlain with thick strata of salt. The new test will seek to drill into the 2,000-foot pay in a manner which will enable it to overcome the difficulties encountered in the former test. The Midwest well was on a ledge along the bank of the river and flanked at the rear by high cliffs. The Big Six well will be on top of the cliff and it will be necessary to construct a 1,000-foot incline to hoist up rig and supplies. However, the river landing will be much better than the one the Midwest had to use.

Virgin Dome Oil Co.'s No. 1, NW cor. Section 16-42-14, Harrisburg district, Washington County, is reported to have a show of oil at 3,381 feet in a 20-foot unidentified sand. The show is coming through several hundred feet of water. The 4¾-inch is being lowered for a shutoff after which the sand will be tested.

Ramsey Petroleum Co.'s No. 1 Weightman, SW NE SW Section 18-26-7e, Emery County, is drilling at 2,000 feet.

Canadian Fields

(Continued from Preceding Page)

natural gas for Regina and other Saskatchewan cities, and projects to supply gas to these places from the Alberta fields have fallen through largely because of the hope that drilling within the province would ultimately result in a nearer and cheaper supply.

Drilling in Prospect

Drilling operations this season will likely be more active in many parts of Saskatchewan, with a number of new tests started in addition to resumption and probable completion of tests that have been inactive. In the Lloydminster area, it is probable Lloydminster Gas Co. may drill a second test, unless the ultimate production of No. 1 proves very large. Altoba Oil & Gas Co.'s No. 1 is expected to continue drilling on the Lone Rock Done. South of Cummings, in the southwest section of the province and just east of the Many Island Lake area of Alberta, Twin Cities Oil & Gas Co. is reported rigged. On the Dirt Hills structure, Highwood-Sarcee's No. 1 will be deepened into the lime. Blackfoot Oil & Gas Co. last year made arrangements for resuming work on its test near Wilcox, and Golden Ridge Oil & Gas Co. of Calgary has made tentative arrangements for further drilling in the Unity Valley area. This company is under direction of R. H. Breckon, who was connected with the earlier Unity Valley tests. There is a possibility that Aladdin Oil & Gas Co. may deepen its test at Pilot Butte, east of Regina.

In the northern end of the province, further drilling is expected at Hudson Bay Junction where an oil show was encountered by the Petroleum Engineering Co. in a structure test two years ago. Trail Blazer Oil & Gas Co. has an unfinished test standing at 270 feet in the SW Section 34-44-3w2. This area is in the east central section of the province, not far from the Manitoba boundary, and the area is remote from the southwestern portion of the province where practically all the Saskatchewan drilling has taken place. The Hudson Bay Junction area is regarded as a shallow oil prospect.

Ontario Drilling

In the Dover Field, Kent County, Ontario, Ajax Oil & Gas Co.'s No. 8, Antaya farm, has been finished with an open flow of 500,000 feet a day from the Trenton limestone below 2,900 feet.

In the Dawn Field, Lambton County, Union Gas Co.'s No. 74, Lot 4, Concession 8, Dawn Township, is drilling below 315 feet.

In the Haldimand-Norfolk area, further east, Sterling Gas Co. is planning to do some additional drilling. The company holds 634 acres in Walpole Township, south of Hagersville, on which seven producing wells have been drilled and will drill eight more tests.

In the far south end of the Turner Valley Field, Highwood-Sarcee Oils' No. 1, LSD 16, Section 21-18-2w5, has drilled through the brown sand of the lower Dalhousie in which a strong flow of light crude was encountered some weeks ago. The test went through the sand without increasing production and it was decided to continue to the crude naphtha horizon of the Madison lime, involving about 100 feet of Kootenay and 100 feet of Fernie shale.

In Section 28-18-2w5, Spooner Oils' No. 5 Anaconda, LSD 1, got the Home sand at 4,670 feet, with a gas flow of around 3,000,000 feet at the contact. It is logging closely with Highwood-Sarcee's No. 1.

Pacalta Oils' No. 1, LSD 7, same section, got the brown sand of the lower Dalhousie at 4,780 feet, with a small show of light crude.

Shareholders of Wellington Oil & Gas Co. met at Calgary recently when the following officers were elected: President, R. A. Brown; vice president, A. M. Robertson; directors, W. A. Carmichael, R. M. Van Bibber and Frank Anderson of Calgary, and William M. Denton of Oyen; secretary-treasurer, Len Phillips. The shareholders considered alternative propositions from Royalite Oil Co. offering 6,500 shares of stock for Wellington's No. 1 lease and deep lime producer in LSD 1, Section 20-19-2w5; and from the Independent Gas Producers, Ltd., for handling of the company's wet gas production in a proposed new absorption plant. Decision was left to the board of directors.

Border Fields

On the Twin River structure south of Lethbridge, Nordon-Roney's No. 2 Twin River, LSD 11, Section 2-2-20w4, is cleaning out preparatory to running acid with a view to increasing production from the top of the Madison lime. Unofficial estimates place the potential production at 20 bbls. a day of high grade crude as the well stands.

Oklahoma Fields

(Continued from Page 86)

Hughes County, was completed for 15 bbls. a day from 1,160-88 feet.

Limestone Oil Co.'s No. 10 Walker, NW cor. SE NE Section 15-7-8, was completed for 25 bbls. on the pump from sand at 1,188-1,213 feet. Same company's No. 11 Walker, C S half NE NE Section 15-7-8, is a rig.

Peterson and others' No. 1-A Witty, SW cor. NW Section 22-7-8, was abandoned at a total depth of 375 feet.

Roush and others' No. 2 Warren, SW cor. NW NE NE Section 22-7-8, is a rig.

Royce and others' No. 1 Warren, 22 feet south and 1,340 feet west of NE cor. SE Section 28-7-8, is a machine.

English Drilling Co.'s No. 3 McKenna, NE cor. SW SE Section 11-5-9w, Caddo County, was spudding.

Little Nic Oil Co.'s No. 5 Farwell, C W half NE SE Section 26-5-8w, Grady County, was rigging up.

Carter Oil Co.'s No. 1 Hanner, SW cor. NE SW Section 24-5-1w, McClain County wildcat, was drilling at 2,120 feet.

In the Fitts Pool, Pontotoc County, a number of the tests were nearing the pay horizon. Manahan and others' No. 1 Raynolds-Wagner, C SW NE SE Section 18-2-7, Pontotoc County wildcat, swabbed 198 bbls. in 24 hours from 1,725-64 feet.

E. M. Blanchard and others' No. 1 Crabtree, NE cor. SE NE Section 27-2-6, a wildcat, was drilling at 150 feet. Anderson and Kerr's No. 1 Darrough, SW cor. Section 11-2-7, was rigging up. Mabee and others' No. 1 Lance, SW cor. NE Section 18-2-7, found a water sand at 1,875-83 feet and was shut down at 1,932 feet. Magnolia Petroleum Co.'s No. 1 Norris, NW cor. SE SE Section 18-2-7, was drilling at 250 feet. Schermerhorn Oil Co.'s No. 1 Norris, NW cor. NE Section 19-2-7, was spudding. Crosbie and Moran's No. 1 Hardin, SW cor. NE Section 30-2-7, was drilling at 200 feet. J. C. Shaffer was rigging up at No. 1 Hardin, NE cor. NW SW Section 30-2-7.

Garvin County

Carter Oil Co.'s No. 1 Parton, SE cor. SW Section 33-1-3w, Garvin County, was abandoned at a total depth of 3,210 feet.

In Southern Oklahoma

Centrop Oil Co.'s No. 2 Burge, SW cor. SE NE SE Section 25-7s-5, Marshall County, was showing about 30 bbls. of oil a day from 528-38 feet.

Lang and others' No. 12 Seay, 100 feet south and 1,509 feet east of the center of Section 3-7s-5w, Jefferson County, was drilling at 590 feet.

McHenry and others' No. 1 Parrish, SW cor. SE SE Section 22-2-2w, Carter County, was drilling at 350 feet. Daphne Oil Co.'s No. 1 Higgins, NE cor. Section 36-1-3w, resumed drilling at 1,930 feet. Amos Drilling Co.'s No. 3 Mitchell, C SE NE NW Section 19-1-2w, was rigging.

Sykes and others have started drilling at No. 3 Blake, NW cor. NE NE SW Section 16-1s-8w, Stephens County, and on last reports was 1,350 feet.

Kansas Fields

(Continued from Page 90)

County, dry and it was abandoned at 3,314 feet.

E. F. Jones and others' No. 3 Rose, NW cor. SE SE Section 31-19-9w, a location, was abandoned.

Ramsey Oil Co. has erected a rig for No. 2 High School, NE cor. SW NW Section 32-19-9w, on the Chase townsite.

Magnolia Petroleum Co.'s No. 1 Tucker, SE cor. NW Section 27-21-13w, Stafford County, was abandoned at 3,810 feet.

P. Ashby and others' No. 1 Whitson, NW cor. SW SW Section 16-11-15w, Russell County, is a machine.

National Refining Co. is moving in material for No. 1 Ingersol, C NE NE Section 2-19-13w, Barton County, in the Cheyenne bottoms.

Kingman County

J. M. Kessler and J. E. Thier and others are preparing to move material to No. 1 Bollinger, SW cor. NW SW Section 12-28-5w, in the northeastern part of Kingman County. The test is located on the Abilene arch, on a seismograph tested block of acreage located in Sections 1, 2, 11, 12, 13, 16 and 23.

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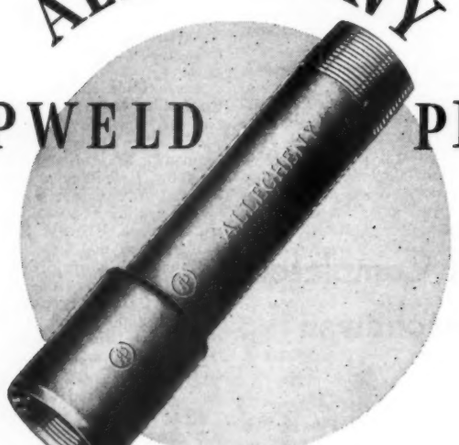

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TECHNICAL QUESTIONS ANSWERED

By Charles K. Francis, Ph. D., Technical Editor

This department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation; also those connected with marketing and utilization of petroleum products.

Questions should be submitted in as much detail as possible.

Inquiries must be signed but only the given initials will be printed. The source of the question is considered to be confidential

Questions requiring a discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered.

When the matter is of general interest the reply will be published within a reasonable time.

Reason for Treating Operation As Applied to Light Distillates

What is the chief object of treating? When treating light oils are the gums and coloring materials removed by acid or alkali? What other treating agents can be used in place of acid?—W. V. A.

The treating operation as applied to petroleum distillates, especially gasoline and kerosene, has for its object the removal of corrosive substances, reduction of tar and gum, and to make a product which will be of good color, water-white, and free from an objectionable odor. Further, the finished product must be reasonably stable; that is, it should withstand oxidation and not liable to decompose. This means that the product should not, while in storage, develop a bad odor, deepen in color (go off color) and increase in gum content.

Sulphuric acid is the most extensively used of the treating chemicals. Some distillates are partially purified by passing through fuller's earth, charcoal, etc. The chlorides of aluminum and zinc are also used. The powerful chemicals such as permanganates, phorous pentoxide, metallic oxides, compounds of selenium, phosphoric acid, and other substances have been discussed as possible treating agents. The hydrogenation process is a treating method.

A brief explanation of acid treatment was given by W. H. Thomas before the World Petroleum Congress, London, July 19-25, 1933, in the paper "The Refining of Vapor Phase Cracked Gasoline," which is quoted.

"In the literature in particular, acid treatment has commanded more attention than any other method; it is relatively easy to apply and in most cases does not require very specialized apparatus. Sulphuric acid acts as a strong polymerizing agent and transforms olefines into gummy substances nonvolatile in steam, the extent of the transformation depending largely on the strength and quantity of the acid.

"Trusty, in examining the effects of various factors in the refining of cracked distillates, has shown that the amount of acid formed at rerun stills may be reduced by a low temperature of treatment, short periods of agitation and settling time before neutralization and an increase in the amount of steam used during distillation. Water washes and strength of caustic wash do not affect acid formation. Color is improved by short periods of agitating and settling, by long periods of settling prior to distillation and by an increase in open steam used for distillation. Color is not affected by temperature of treatment or by water washing or by strength of caustic wash. The sulphur content is reduced by long acid agitation and settling time before neutralization, but only slightly by water washing before neutralization.

"Acid treatment may be carried out batchwise or continuously with weak or strong solutions, but for vapor phase cracked distillates, a continuous treatment or a succession of small treatments with progressively stronger acid is desirable."

Water alone removes some hydrogen sulphide and some odor-forming substances. Heavy applications of strong alkali tend to cause development of color, especially yellows.

The modern plants conduct the treating of light oils in closed systems of the continuous type to avoid loss of vapors.

Cresylic Acid and Hydroquinone as Gum Inhibitors

Could you tell me the value of hydroquinone and cresylic acid as gum inhibitors, which is the better, and what quantity should be used in gasoline?—E. W. C.

The selection of a gum inhibitor will in the first place be influenced by the type of gasoline. There have been numerous articles in The Oil and Gas Journal describing the various color and gum inhibitors. The following gives some data about hydroquinone and cresylic acid, in convenient form. The reference is World Petroleum Congress, London, July 19-25, 1933, Preprint No. 70; "The Refining of Vapor-Phase Cracked Gasoline," by W. H. Thomas.

"Various additions of the inhibitors were made to a highly unstable sample of vapor-phase cracked gasoline and the mixtures heated in the bomb at 100° C. with oxygen (10 pounds per square inch) for 30 minutes, gum contents being determined at the end of each treatment, with the following results:

EVALUATION OF GUM INHIBITORS

Cresylic acid		Hydroquinone		Catechol	
Per cent by wt.	Gum content after 30 mins. in bomb, mg./100 ml.	Per cent by wt.	Gum content after 30 mins. in bomb, mg./100 ml.	Per cent by wt.	Gum content after 30 mins. in bomb, mg./100 ml.
0.00	80	0.000	80	0.000	80
0.03	58	0.001	70	0.0005	74
0.05	28	0.002	63	0.001	49
0.075	20	0.004	10	0.0025	12
0.10	11	0.006	7	0.005	8
0.15	11	0.008	6	0.0075	7
....	..	0.01	3	0.01	4

From the above, the amounts of each inhibitor required to stabilize the sample were deduced to be 0.1 per cent in the case of cresylic acid and 0.01 per cent for both hydroquinone and catechol. These amounts were added to separate portions of the original sample and the mixtures subjected to oxidation in the bomb for varying periods of time. The gum content figures obtained as a result of this experiment are given below, together with those of a commercial grade of motor spirit:

EXPERIMENTAL INHIBITOR DATA

Time in bomb, mins.—	Original sample, mg./100 ml.	Sample +0.1% cresylic, acid, mg./100 ml.	Sample +0.01% hydroquinone, mg./100 ml.	Sample +0.01% catechol, mg./100 ml.	Commercial spirit, mg./100 ml.
15	58	8	1	1	2
30	80	11	2	2	3
45	104	27	5	2	6
60	130	52	10	2	12

By plotting stability curves it was seen that two of the inhibited samples were equal in stability to the commercial grade of fuel, and that, broadly speaking, hydroquinone and catechol were 10 times as efficient as cresylic acid.

Synthetic Gasoline Being Made by Largest Chemical Plant

It has been reported that a synthetic motor fuel is being made by the largest chemical plant in the world, located in Germany. Could you tell me what is the nature of this product, something about the plant, where located, and how many people are employed?—A. R. C.

The hydrogenation process, originally developed in Germany, has been under plant scale investigation for some years by the I. G. Farbenindustrie A. G., the firm which is noted for its world-wide business in dyes, at its Luna works, near Merseburg, Germany. The raw material is reported to be lignite, from which a satisfactory yield of motor fuel is being made. See this page, issue of January 18, 1934.

The establishment at Luna is said to be the world's largest chemical plant, extending over some 130 acres and 850 buildings, where nearly 10,000 persons are employed.

The plant was first established in 1917 for the manufacture of nitrogen products, the nitrogen being extracted from the air. The nitrates and ammonia compounds produced being consumed in the manufacture of explosives, dyes, and fertilizers.

This plant is reported to have made about 900,000 bbls. of gasoline by the hydrogenation process during the year 1932, when plans were announced for extensive enlargements to permit the manufacture in the near future of much larger quantities.

Chemicals Used in Petroleum Refining—Litharge

This description of litharge is part of a series of short articles about the chemicals used in petroleum refining. Previous descriptions were: Sulphur, March 15; sulphuric acid, March 22; sodium hydroxide, March 29; lime, April 5, 1934.—Editor.

The word litharge is derived from the Greek, meaning scum of silver; because many of the silver ores contain lead which collects on the surface of the molten silver as scum in the form of the oxide of lead PbO. It is extensively used in the arts; in the manufacture of glass, the glazing of pottery, tile, etc., especially. Its particular use in petroleum refining is for the preparation of sodium plumbite, or doctor solution, for the removal of objectionable sulphur compounds from the light oil distillates. The doctor solution is made by saturating a solution of sodium hydroxide with litharge. The solubility ranges from about 1.5 to 3 per cent by weight in the cold solution, over the range of the usual strengths of the caustic solutions. These are commonly from 12° to 20° Be.

Litharge is made by heating lead in a low-arched reverberatory furnace and permitting a large volume of air to flow over the molten lead, causing oxidation to produce oxide, PbO, called litharge. This oxide floats and is removed by means of skimmers, iron hoes, to be cooled, ground and purified. This is the principle of the process long in use, which is a batch operation, and still practiced.

The method used in the large modern plants, is to produce the litharge by a continuous process. The air is directed through jets onto the surface of molten lead, the force of the air sweeping the oxide to the front end of the furnace. Additional lead is continually flowing into the basin so to maintain the quantity of molten lead at a constant level. The molten litharge flows off into a receiver to be cooled. When cold the mass is crushed and ground to an orange or yellow powder. This is freed from solid particles of lead, or partially oxidized lead by air floating. Some litharge is made by oxidizing the lead at so low a temperature that the litharge formed does not reach the fusing point. This produces a fine fluffy yellow litharge.

Litharge is made to a limited extent by the action of sodium nitrate, held at about 644° F. for 20 to 30 minutes. A brown mass is formed. This is treated with water, sodium nitrate being crystallized from the liquid portion, the residue consisting of litharge. This residue is washed to produce the commercial product.

Properties. Formula PbO; molecular weight 223.2; specific gravity 9.375; melting point 1,630° F.

Price. Shipped in barrels 500 to 600 pounds and kegs of 100 pounds at about $5.50 per 100 pounds delivered.

Here is Rex DEEPWELL Chabelco Chain on the rig that drilled the Denver Producing & Refining Company's "Adah-Noe No. 1" near Binger, Okla.

They Drilled "Adah-Noe No. 1" with REX DEEPWELL

DOWN through 3600 feet of Permian sandstone and through nearly 6300 feet of Pennsylvanian sand—Rex DEEPWELL Chabelco Chain drove the rig that sent the tools down 9982 feet.

Rex DEEPWELL was used on this rig from the spudding in to the oil sand nearly two miles below the surface—another record for the Greatest Chain that Ever Hit the Oil Fields.

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FIELD PROBLEMS FROM READERS

Edited by Thomas F. Smiley

Mesh for Screened Pipe Decided by Grain Size and Gradient

In the use of screened pipe in the well there seems to be no satisfactory rule to follow concerning the size of the mesh that should be adopted. I have become interested in this matter and I would be glad to know what engineers say should be the guide in determining the size of mesh to use. It seems clear that any one mesh would not be equally suitable in all sands.—E. D. F.

Speaking generally, the grain-size range and gradient of the sands of the production zone are the controlling considerations in determining the right mesh for screened pipe. These can be ascertained only by careful sampling of the sands and subsequent accurate screen analysis. Clifford S. Wilson, production engineer for the Venezuela Gulf Oil Co., discussed this subject as follows in a paper delivered before the A.I.M.E.:

"The best mesh would be the maximum opening between the wires over which the sands would bridge before occurrence of appreciable abrasion. The mesh always must be sufficiently small. Too large a mesh, even slightly too large, means failure, for abrasive action operates in a cycle wherein a small amount of abrasion admits more sand, and more sand causes further abrasion and the admissions of more sand, thus leading to a ruined liner.

"The relation of grain size to screen opening undoubtedly varies with the shape as well as size of the grain sands, but this variation has not been determined. Grain size, however, must be relied upon as the controlling factor in screen-mesh determinations. Several engineers have worked on the problem involving the relationship between width of opening in slotted pipe, or mesh, and the grain-size characteristics of various sands.

"F. A. Graser, working at the University of California, arrived at the conclusion that a slotted opening will restrain the flow of sand effectively if its width is less than twice the average diameter of the largest one-seventh of the sand grains banked against it. Experiments performed by the writer at Stanford University tended to confirm Mr. Graser's conclusions.

"In current practice there is no uniform method or criterion for the selection of the mesh of screened pipe. It is common practice to permit the finer sand to pass through the slots and the coarser sand to be retained by them. Such practice is lacking in technique, and a final decision usually is determined by trial and error or by 'hunch,' which at best is guesswork. There is a common agreement in practice that when coarse grains are held on the strainer a sand filter is built up by successively smaller grains, and this filter eventually prevents other sand from passing through the mesh. Hence under conditions of nominal gas pressure the percentage of sand held by a given mesh may be reduced to a relatively low point without affecting retension of the sand on the screen. In such cases, however, some sand will be produced during initial production of the well until the secondary sand filter is built up. Until the production of sand is totally checked the greatest care must be taken to control the rate of flow from the well, for the smaller sand grains on being crowded through the screen openings will have a cutting effect which is increased by their velocity.

"It has been found that under ideal conditions sand may be effectively held when the width of the opening is twice the average diameter of the largest one-seventh of the sand grains. This rule gives a slot width corresponding to the diameter of the grains at very low percentages."

This department is conducted in order that men connected with the drilling, producing and transporting branches of the petroleum industry may obtain aid in solving problems that confront them in their work. Readers are invited to send questions freely. These questions will be placed in the hands of persons capable of answering them authoritatively, and the answers, based on the best available information, will be published.

Each question should give as much detail as possible, especially if it involves depth of sands, types of sands and operations on adjoining or nearby properties. The source of questions will be considered confidential, and only the initials of the sender will be published. Questions involving patented processes, intricate formulas or estimates of cost cannot be answered. If an immediate answer is important, one will be given by mail when the writer requests it.

In this connection, The Oil and Gas Journal will be glad to publish articles from field men who have devised new methods or improved old ones.

Law Specifies Method to Be Used in Plugging Abandoned Wells

I want to know what method of plugging abandoned wells is practiced in Ohio. Are there any accepted rules touching the details of plugging operations in the oil fields of that State? I would like to know particularly, too, what the practice is where a well has been drilled through a coal stratum and then is abandoned.—D. T. W.

Your questions involve not simply matters of oil field practice, but the laws of Ohio governing the plugging of abandoned wells. While this department cannot undertake to give legal advice, it is glad to quote the Ohio law covering the points raised in your questions. The statutes say:

"When any oil, gas or test well is to be abandoned, it must first be plugged by filling the hole with rock sediment or properly prepared clay to a point above the oil or gas, sand or rock formation and then there shall be placed or driven on top of the sediment or clay one or more seasoned wooden plugs or a lead plug as the case may require and such plug or plugs shall be placed or driven in such a manner that the same shall be at the top of the oil or gas or rock formation, and will prevent the escape of gas or oil and will prevent water or destructive matter entering the oil or gas, sand, or rock formation. Such hole shall be filled at least 100 feet above such plug or plugs or filled to the lowest casing seat with rock sediment or clay and such material used for such filling shall be properly prepared. After the first string of casing has been withdrawn from such well a wooden plug or iron ball of sufficient size shall be placed upon the casing seat and at least 50 feet of rock sediment or properly prepared clay placed upon such wooden plug or iron ball.

"If any well has passed through a vein or seam of coal, it shall, when it is abandoned, be plugged in the following manner: A seasoned wooden plug shall be driven to a point 50 feet below the lowest seam of coal and the hole filled with properly prepared clay or rock sediment to a point at least 20 feet above this seam of coal at which point another wooden plug shall be placed and the hole filled for a distance of 30 feet with properly prepared clay or rock sediment. If there is more than one seam of coal the next seam above must be plugged off in like manner. When any well which has been drilled is to be abandoned and has passed through the excavations of any mine, the person, firm or corporation owning such well shall leave the casing in such well from a point 30 feet below the floor of such mine to a point at least 15 feet above the roof of such mine or to the rock above the seam if roof conditions at such mine warrant the extension thereto. A seasoned wooden plug shall be driven to a point 100 feet below the floor of such mine and the hole above such plug, together with the casing left in, which extends through the mine, shall be filled with properly prepared concrete. Then a seasoned wooden plug shall be driven on the top of such casing, and the hole filled with properly prepared concrete for a distance of not less than 20 feet."

Why Was It Called That?

THUMB BUSTER

As a result of improvements introduced by the manufacturers of oil field equipment the term "thumb buster" as a designation for the elevator, has fallen into disuse. The old-style elevator, the tool which is snapped around the casing or drill stem when it is to be pulled from the hole, catching hold of the collar at the end of the joint, was a prolific source of accidents. The roughneck suffered thumb injuries so often in handling the device that he came to call it "thumb buster." The modern elevator is attended by few mishaps.

Place of Pilot and Photographer Important in Aerial Survey

I am interested in the aerial surveying of prospective oil fields and I would appreciate some information regarding the duties of the pilot and the photographer in this work and their qualifications. Can you tell me briefly too something about the way this photographic work is done?—L. E. N.

To describe in detail the work of aerial surveying would require much more space than is available here. In most cases vertical photography is the best adapted for survey purposes and except in a few parts of the world where the Canadian oblique method of plotting may be used, it is the simplest to carry out. Lieut. J. S. A. Salt, an authority on aerial surveying, provides the following answer to your question concerning the duties and qualifications of the pilot and photographer, with a short description of their work:

"In unsurveyed country, a few strips, known as navigation strips, are first flown to provide a skeleton framework. These are either plotted graphically or compiled in the form of a mosaic, and on this compilation the center lines of all the filling-in strips are drawn. The photographs of the various navigation strips, which are crossed by the center line of a particular filling-in strip, are then marked with the center line and used as an aid to navigation. The more accurate the original navigation framework, the less marginal or lateral overlap between strips need be allowed, and the greater the economy of flying.

"Any good pilot can fly for survey photography with a little practice. The principal requirement is extreme care. The task of flying straight and level for long periods is arduous and monotonous, and anything which may help the pilot is of value. The greatest assistance is gyro control, which not only keeps the track very straight but reduces the tilts on the photographs to within about half a degree. This is of the greatest importance for the simpler methods of plotting, and in any case reduces the margin of error for providing the required overlaps. No photography of any large area should in the future be undertaken without gyro control.

"To photograph a strip it is usually necessary either to fly between two observed points (e. g. taken from the navigation prints), or to fly over given points and maintain thereafter a given compass course. In each case a straight and level flight must be made. Both methods entail the determination, either directly or indirectly, of the speed and direction of the wind. This added vectorially to the air speed determines the ground speed, the difference in direction between the two latter being the angle of drift. The duties of the photographer are:

"(1) To determine the wind speed and direction, and direct the pilot on to the correct course. (2) To turn the camera through the angle of drift so that the photographs are not 'crabbed.' (3) To trim the camera level when steady flight at the required height has been achieved. (4) To set the time interval between exposures necessary to produce the required fore-and-aft overlap.

"The accuracy of the above operations will depend very largely on the comfort of the aircraft.

"The time taken will depend on the methods and instruments used, and on the skill of the photographer and pilot.

NATURAL GAS DEVELOPMENTS

Fort Worth's Municipal Project to High Court

AUSTIN, Tex., Apr. 9.—The right of home rule cities to condemn utility plants, pay for them and operate them as municipal projects, will be considered by the Supreme Court of Texas.

The proposition was placed before the state's highest civil judiciary in an appeal of the Lone Star Gas Co. against the city of Fort Worth. That city had proceeded to make plans to take over the plant of the company and operate it after paying for it. There had been a long controversy about rates before the city moved to acquire the property.

Fort Worth won in the district courts and was sustained by the court of civil appeals. The company then asked the Supreme Court to consider the matter, and that tribunal did so "because of the importance of the case," it noted.

The law as interpreted by the highest court will affect all home rule cities.

The company contended that the city was without constitutional authority to make the condemnation, and pleaded the city did not have sufficient funds to pay for the property, which the company valued at $16,000,000.

Natural Gas Conference Called in Michigan

MUSKEGON, Mich., Apr. 9.—Municipal officials and industrialists throughout Michigan have been invited to attend a conference on natural gas regulations and rules for production, transmission and distribution to be held Wednesday, April 18, before the State Public Utilities Commission in Lansing.

The call for the conference is Governor William Comstock's first move to bring about the greatest possible utilization of Michigan natural gas reserves, possible reductions in rates and other control through the newly appointed commission.

The conference is expected to result in the appointment of an advisory committee to work with the commission and its engineering staff in devising new rules for the natural gas industry in Michigan.

The nucleus of this advisory committee will be R. A. Smith, state geologist, Manfred K. Toeppen, a public utilities engineer recently employed by the commission to make a special natural gas survey and Oscar G. Olander, head of the state department of safety. To this group will be added one or more representatives of the industry, one or more municipal representatives and a representative of the Michigan Oil and Gas Producers Association, it is understood here.

GALVESTON CASE SUSPENDED

GALVESTON, Tex., Apr. 9.—Galveston's gas rate controversy, pending before the State Railroad Commission since April 12, 1933, will be suspended for a least a year, due to the fact that the city is unable to finance the litigation without increasing the tax rate.

This decision was reached by the city commissioners after being told the cost of the litigation would range from $15,000 to $20,000.

TEXAS WINS TAX SUIT

AUSTIN, Tex., Apr. 9.—Judgment for $105,934 in favor of the State against the United Gas Public Service Co. for delinquent franchise taxes has been entered by J. D. Moore, Travis County district judge. Taxes alleged delinquent were from May 1, 1930, through the present fiscal tax year, ending April 30.

The suit was based on the definition of interstate sales of gas imported from other states and sold in Texas. The State contended certain sales were intrastate. The gas company contended they were interstate and not subject to consideration in computation of franchise taxes.

Purified Gas Proposal Offered Canadian Towns

LEAMINGTON, Ontario, Apr. 7.—At a meeting held here last week H. E. Merrill, representing the Southern Ontario Gas Co., submitted to representatives of local municipalities a proposal for a supply of purified natural gas.

The Southern Ontario Gas Co. has been supplying natural gas from the Tilbury Field to Leamington, Kingsville and Wheatley and to rural consumers on the line in Mersea and Gosfield Townships. Recently attempts have been made by the municipalities to secure either a lower rate or purified natural gas at the same rate. The gas from the Tilbury Field contains a percentage of sulphurated hydrogen.

On behalf of the company it was stated that the company would not consider a lower rate. Purified natural gas, however, could be supplied to Leamington alone at an additional cost of 7 cents per 1,000 feet, or to all three urban municipalities at approximately 5 cents per 1,000 feet extra. With purified gas consumers can use modern equipment which is more efficient and economical, so that though the rate per 1,000 feet is slightly higher, the actual bills may be somewhat less.

The proposal will be considered by the councils of the various municipalities.

WILLIAM P. GRAY DIES

WELLAND, Ontario, Apr. 7.—William P. Gray, operator of the Dominion Natural Gas Co. compressor station at Winger, died in a hospital here last week from injuries received when fire, following an explosion, destroyed the plant. The plant handled the gas going to Port Colborne and St. Catherines, and when the fire started Mr. Gray attempted to divert the gas flow to keep these places supplied. His effort, which resulted in fatal burns, was partly successful, the supply being later completely restored by the Dunnville staff. Mr. Gray was 61 years of age and had spent many years in the employ of the Dominion Natural Gas Co.

MONROE GAS TAX CASE

WASHINGTON, D. C., Apr. 9.—The Supreme Court has remanded to the Federal District Court for further action the suit of the Mississippi state tax collectors to tax the property of the Interstate Natural Gas Co., the operators of a pipe line from the Monroe gas field in Louisiana.

The Supreme Court held that a three-judge court was improperly convinced to consider the case.

R. F. C. AID REFUSED

Lance C. Hill, president of the Inland Pipe Line Co., which proposed to pipe natural gas from the Burrton Field to Emporia, Kans., has returned from Washington where he spent nearly two months in an effort to get a loan from the R. F. C., with which to build a pipe line. The loan has not been granted, but Mr. Hill still has hopes, he says. In the meantime, Emporia still is being supplied with gas by the Kansas Electric Power Co., which buys its gas at the city gate from the Doherty company.

Columbian Carbon Report Shows Improved Outlook

The report of President F. F. Curtze of the Columbian Carbon Co., for the year ended December 31, 1933, shows earnings amounted to $2,152,885, or $4 per share, before depreciation and depletion, and $1,165,709, or $2.16 per share, after these charges. The last quarter of the year was the most profitable, net income for that period being 76 cents per share. The financial position on December 31, 1933, showed current assets of $6,979,484, of which $1,814,938 was cash, against current liabilities of $683,941.

Tonnage movement of carbon black was the largest in the history of the company, being 69 per cent ahead of 1932, and 13 per cent ahead of 1929. In consequence of the increased volume of sales, accompanied by a voluntary restriction in output, the inventory of carbon black was reduced 50 per cent.

The following statistics summarize the year's operations:

ANALYSIS OF SALES

	Amount	Per cent
Carbon black	$3,311,342	36.40
Natural gas	2,166,259	23.82
Printing inks	1,559,521	17.14
High grade blacks, iron oxides and other pigments	1,024,326	11 26
Natural gasoline	797,449	8 77
Oil and other products	237,254	2 61
Total	$9,096,151	100 0

PRODUCTION

Year—	Carbon black (pounds)	Special blacks, inks and other products (pounds)	Gasoline (gallons)	Natural gas (cubic feet)
1933	69,390,296	18,088,630	27,779,874	33,223,966,000
1932	72,899,643	15,896,520	32,005,751	31,756,446,000
1931	76,804,622	22,009,345	37,816,789	39,911,853,000
1930	100,133,415	14,012,439	45,398,121	47,376,015,000
1929	104,855,183	17,487,437	26,179,539	47,831,168,000

NATURAL GAS SALES

Year—	Cubic feet	Gross rev.
1933	28,560,363,000	$2,166,259
1932	25,538,724,000	2,060,648
1931	27,955,406,000	2,340,355
1930	31,136,513,000	2,689,329
1929	26,934,903,000	2,545,999

ACREAGE ON DECEMBER 31, 1933

State—	Owned	Leased	Total
West Virginia	500	16,535	17,035
Louisiana	40,880	20,323	61,203
Kentucky	100	65,863	65,963
Texas	382	4,729	5,111
Oklahoma	71	...	71
New Mexico	....	1,640	1,640
Pennsylvania	....	8,314	8,314
New York	....	1,321	1,321
Total	41,933	118,725	*160,658

*In addition, the company has undivided interests aggregating 37,438 acres in oil and gas leases in Kansas, Oklahoma, New Mexico, Texas and Arkansas.

WELL RECORD

State—	Producing wells Dec. 31, 1932	Drilled or acquired	Sold or abd.	Producing wells Dec. 31, 1933
West Virginia	140	4	0	144
Louisiana	261	1	9	253
Kentucky	139	1	1	139
Texas	5	17	0	22
Total	545	23	10	†558

†The company also buys gas from 174 wells under contract.

"The most encouraging and constructive development of the year was the progress made toward restoring the carbon black industry to a healthier condition. For the past four years the industry has suffered greviously from the results of overcapacity and overproduction, with excessive inventories hanging over the market and prices demoralized by distress sales. Effective measures have at last been taken to combat these evils. By liquidation of excess stocks and curtailment of production, the statistical position of the industry has been much improved. An export corporation has been formed under the sponsorship of the leading producers, and has already been of signal service in correcting chaotic conditions in the export trade. A code of fair competition, officially approved on February 8, 1934, provides for exchange of price information, restricts production to consumer demand and prohibits increases in plant capacity except with approval of the code authority of the NRA.

"Besides the improvement in the carbon black outlook, it is gratifying to report that natural gas sales for the first two months of the current year are 22 per cent above the corresponding months of 1933."

Canada's First Permit for Carbon Black Plant

CRAIGMYLE, Alberta, Apr. 7.—The first carbon black plant in Canada to be constructed on the C. R. Ecklin farm 9 miles north of here is expected to be on a production basis by July.

Several weeks ago Mr. Ecklin received an Alberta government permit to produce carbon black. This was the first permit of the kind to be issued in Canada. The plant is to be built by the Pioneer Carbon Black Co., Ltd., at an estimated cost of $20,000. In addition to Mr. Ecklin, the backers of the company include Russell Johnson, geologist, R. C. Burns and John Sherman of Calgary.

In drilling a water well some 15 years ago, Mr. Ecklin struck a gas flow of about 50,000 feet a day at 450 feet, which he has since utilized on his farm. In 1923 he drilled two more wells to the same horizon, getting a production of around 100,000 feet from each. About a year ago Mr. Ecklin experimented with carbon black production from the gas with a primitive plant of his own construction. In this plant the gas is burned under square rods set against a long hot plate. A scraper running automatically along the rods slowly scrapes off the accumulated carbon black, the gas operating the scraper. Production, amounting to about 5 pounds a day, has been sold to a paint manufacturer in Calgary. Heretofore all carbon black used in Canada has been imported from the United States. Mr. Ecklin expects with the commercial plant to produce 1½ pounds of carbon black from 1,000 feet of gas, the commodity commanding a price of 11 cents a pound. The gas, which, unlike the Turner Valley product, contains little or no sulphur, is admirably suited for carbon black production.

In addition to building the plant, the Pioneer Carbon Black Co. will drill more than a dozen additional wells on the Ecklin farm to supplement its gas production. The farm is approximately 122 miles east of Calgary.

LONE STAR SHOWS PROFIT

The report of Lone Star Gas Corp. and subsidiaries for 1933 shows net profit of $3,782,027 after taxes, depreciation, etc., but before subsidiaries' preferred dividends. This is equal, after preferred dividends, to 52 cents a share on the Lone Star common stock, and compares with $4,660,930, or 71 cents a share, in 1932.

This is the POINT

IT'S THE CUSTOM-MADE STEEL THAT SPELLS THE DIFFERENCE!

ROEBLING Welding Wire is made of special welding steel . . . produced specifically for welding purposes . . . by the thorough-going Roebling custom method.

This steel is made in small heats . . . not on the usual tonnage basis. Only special, pure melting stock is used. Small Roebling open-hearth furnaces are employed . . . permitting very close control of the melt.

You would expect such welding steel to be absolutely uniform in quality and free of non-metallic impurities. And it is. May we send data and samples of electric and gas types?

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FRICK-REID SUPPLY CORPORATION
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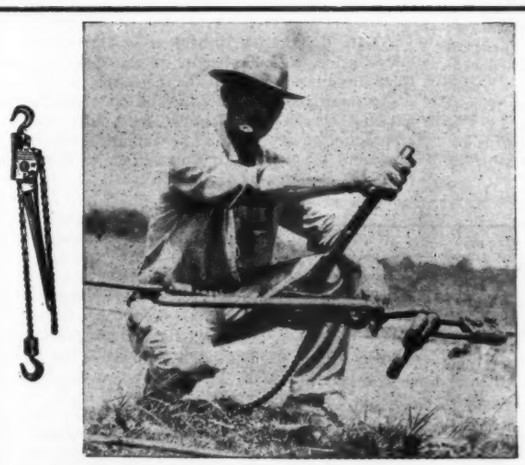


A NEW HELPER in the OIL FIELD

This hoist is a rachet type, using special Diamond roller chain and built with swivel hooks. The lever can be changed from one side to the other making it possible to use the hoist either end up, laying down, or in any position, for lifting or pulling.

The Oil Producers have found the Coffing Hoist to be a superior tool for their work on account of its light weight and compactness, and it is easy to operate.

They use them for picking up rod lines to oil wells, skidding engines, boilers and any cumbersome equipment into place, loading trucks, erecting rigs, or wherever a lift or pull is needed.

Capacities from ¾-ton to 6-ton; weights from 14 lbs. to 65 lbs.

These hoists can be obtained from our representatives:

The Drillers Supply Co., Wichita, Kansas—Norvell-Wilder Supply Co., Beaumont, Texas—Standard Supply & Hardware Co., New Orleans, La.—Young & Vann Supply Co., Birmingham, Ala.—Pacific Wire Rope Co., Los Angeles, Calif.—Pittsburgh Gage & Supply Co., Pittsburgh, Pa.—Trimble & Lutz Supply Co., Wheeling, W. Va.—The Bittenbender Co., Scranton, Pa.—Iverson Tool Co., Tulsa, Okla.

Manufactured by

COFFING HOIST COMPANY
DANVILLE, ILLINOIS.

Meddler-Proof

FULTON Spring-Type Regulator

LIGHT, compact, and easily transported, yet sturdy, dependable, and durable in hard use, the Fulton Spring-Type Regulator is recommended for exposed and remote locations. It is self protecting to an uncommon degree—less subject to accidental disturbance or even intentional meddling than a lever-type regulator—and is very simply designed for quick connection. The high-pressure type will take any inlet pressure up to 300 pounds and reduce to a constant pressure anywhere between 10 and 50 pounds, as desired. Low pressure type is adapted for inlet pressures up to 50 pounds and will reduce to desired pressure not exceeding one pound. Full information on this and other C-F regulators for all requirements of gas control will be mailed on request.

The Chaplin-Fulton Manufacturing Company
28-40 Penn Avenue Pittsburgh, Pa.

PERSONAL PARAGRAPHS

JUNIUS SEASHORE, scout for the Stanolind Oil & Gas Company, Houston, Tex., is being congratulated on the arrival of a son, March 24.

* * *

ROBERT E. POETHIG, representing the McAlear Manufacturing Company, Chicago, stopped over in Tulsa this week on his return from the coast.

* * *

J. C. (PECK) CUNNINGHAM, scout and land man for the Humble Oil & Refining Company, San Angelo, Tex., is rejoicing over an 8-pound boy born March 18.

* * *

E. R. FILLEY, manager of the Oklahoma-Kansas-Kentucky producing division of the Texas Company, is in New York for the annual meeting of division managers.

* * *

H. W. KLEIN, chief engineer of Stanolind Oil & Gas Company, spent several days last week at Fort Worth, Tex., the Texas and New Mexico headquarters of the company.

* * *

J. R. CANNON is acting special agent in charge of the Interior Department's investigators in East Texas, and A. D. RYAN, JR., has been transferred to Salt Lake City, Utah.

* * *

G. D. THOMAS, division geologist at Shreveport, La., for Shell Petroleum Corporation, was called to Denver, Colo., by the sudden death of his mother. Mr. Thomas is secretary-treasurer of the Shreveport Geological Society.

* * *

SIDNEY A. JUDSON, of Texas Gulf Production Company, of Houston, Tex., addressed the April meeting of the Shreveport Geological Society, on the subject, "Segmentation of Flank Sands of Salt Domes by Radial Faulting."

* * *

GEORGE B. MURPHY, manager of the Riverside laboratories at Chicago of Universal Oil Products Company, addressed a luncheon meeting of the Kiwanis Club, at LaGrange, Ill., one day last week on "The Antiknock in Gasoline."

* * *

ARTHUR C. KINGSTON, general manager of Boston Woven Hose & Rubber Company, spent some time with the Happy Belting Company, Tulsa, who act as oil field distributors of their products.

* * *

A. W. MICHNER, assistant superintendent of the Pure Oil Pipe Line Company for the past year, was transferred last week to Wilmington, N. C., where an ocean terminal is being constructed by the Pure company.

* * *

C. V. COULSON, superintendent of the Continental Oil Company's refinery at Farmington, N. Mex., attended a meeting of company refinery superintendents recently at company headquarters in Ponca City, Okla.

* * *

GEORGE WHEELER, of Denver, Colo., and M. N. WHEELER, of Los Angeles, Calif., are in Casper, Wyo., awaiting the completion of the Mutual Oil Company's well on the Midway Dome, 12 miles north of Casper.

* * *

W. ROY HOGAN, of Bowling Green, Ky., has been named superintendent of drilling operations for the McClanahan Oil Company, Inc., operating in the Central Michigan Field. Mr. Hogan, since 1917, has been engaged in drilling, producing and contracting in Indiana, Texas, Oklahoma and recently in the Owensboro Field in Kentucky.

H. D. CRAWFORD, Parkersburg Rig & Reel Company, spent several days in Tulsa last week.

* * *

E. S. DULIN, president of Byron Jackson Company, was re-elected to his present position at the annual meeting of the company recently held in Los Angeles, Calif.

* * *

C. G. CONDRA, attorney for the Stanolind Oil & Gas Company, Fort Worth, Tex., has returned from a business trip to Chicago, Peoria and other points in Illinois and Indiana.

* * *

FRANK C. HART, president of Hartol Products Corporation, of New York, was in California last week concluding a tour that included most of the oil-producing areas of the country.

* * *

B. L. BOYE, of the Standard Oil Company of New York, was re-elected president of the Asphalt Institute at its recent meeting. Vice presidents include A. M. MAXWELL, Standard Oil Company of Ohio; LEROY M. LAW, Shell Petroleum Corporation; J. A. BLOOD, Standard Oil Company of California; and T. M. MARTIN, Lion Oil Refining Company. J. E. PENNYBACHER was retained as managing director.

* * *

W. C. TEAGLE, president of the Standard Oil Company (New Jersey), left Saturday on a trip to Europe. He will meet W. S. FARISH, chairman of the board of the company, who left a week ago. Although no official announcement has been made, it is understood that these executives will confer with officials of European companies in regard to world oil conditions. Other Standard officials who are now in Europe or en route include D. F. HARPER, president of the Standard Oil Export Corporation; ORVILLE HARDEN, director of the Standard Oil Company (New Jersey) in charge of foreign operations, and GEORGE S. WALDEN, senior vice president of the Standard-Vacuum Oil Company, recently organized company, placed in charge of the merged Far East operations of the Standard Oil Company (New Jersey) and the Socony-Vacuum Corporation.

ROBERT McCOY, JR., sales manager for Frick-Reid Supply Corporation, Tulsa, has returned to Fort Worth, Tex., after a trip through Texas and the fields in Louisiana.

* * *

C. F. SPERRY, of Marietta, Ohio, independent oil operator and president of the Independent Gas Producers Association of Ohio, visited Tulsa last week collecting data upon production problems and taxes.

* * *

CLYDE D. HELM, designing engineer, has recently become associated with the Mid-Continent Supply Company in the capacity of chief engineer, with headquarters at his company's main office, Fort Worth, Tex.

* * *

CLAREL B. MAPES, secretary of the Mid-Continent Oil and Gas Association, with headquarters in Tulsa, has been in Shreveport, La., in connection with the meeting of the Louisiana-Arkansas division of the association.

* * *

DR. E. R. LEDERER, vice president of the Texas Pacific Coal & Oil Company, and state chairman of the Division 4 on refining, has returned from a week's conference in Washington, D. C., with the labor subcommittee of the Planning and Co-ordination Committee.

* * *

MISS JANE DAWSON, assistant treasurer and office manager, for the Mid-Continent Oil and Gas Association, Tulsa, has resigned after 14 years of service to retire from business life. Miss Dawson leaves Tulsa and will make her home at Jefferson City, Mo., where her mother resides.

* * *

JOHN F. DARBY, president of Darby Petroleum Corporation, and chairman of the Oklahoma NRA Code Production Committee, convened a meeting of his committee at the rooms of the Mid-Continent Oil and Gas Association, Tulsa, to discuss details of production problems to be submitted to the Planning and Co-ordination Committee at Washington, D. C.

* * *

M. M. KINLEY, fire fighter of Tulsa, is making a quick business trip to California.

* * *

H. D. PATRIDGE, manager of purchases, Indian Territory Illuminating Oil Company, Bartlesville, Okla., made a business trip to the Texas Panhandle last week.

* * *

IRVINE E. STEWART, who has been dividing his time between Montana and California, is now in California with his family. He is the resident geologist for the Santa Rita Oil & Gas Company at Cut Bank, Mont.

* * *

A. J. GREEN has been appointed manager of the Southern Union Gas Company's business at Aztec, N. Mex., taking the place of GEORGE FOSTER, who has taken a position with the Federal Government in the Indian service at Gallup, N. Mex.

* * *

H. C. McFARLAND has been chosen president of the rig builders division of the Oil and Gas Producers Association of Michigan; WILLIAM FREE, treasurer; and HENRY G. HUNT, secretary. Drilling contractors also met and named a steering committee including JAMES C. GRAVES, J. W. McINTOSH, WILLIAM CLINE, CHARLES BELL, E. M. SHIELDS, ROBERT W. ATHA, and J. C. ARTHURS.

DO YOU REMEMBER?

From The Oil and Gas Journal Files

25 Years Ago

April 12, 1909

Thomas A. Lott, Independence, Kans., arrived in Tulsa to become cashier of the Prairie Oil & Gas Co., succeeding Charles Simmons, who resigned to become vice president of a bank.

J. H. Evans chosen president of the Mid-Continent Oil and Gas Producers Association.

Indications are the proposed shutting down on all new drilling in the Mid-Continent fields will not be successful.

High wind fanned a fire which broke out in the Red Fork Field, south of the Texas Co.'s tank farm, destroying three rigs and several tanks.

20 Years Ago

April 12, 1914

Prairie Oil & Gas Co. spending $500,000 constructing tank farm at Neodesha, Kans.

Anglo-Persian Oil Co. announces completion of its 200-mile pipe line from the Persian Field to the new refinery at Abadan on the Persian Gulf.

One of the deepest wells in the State, drilled to 2,875 feet, near Stroud, was dry.

10 Years Ago

April 12, 1924

Scurry, Hutchinson and Carson Counties, Texas Panhandle, added to production map.

Wewoka Field opened for deeper drilling, 600 feet below Wewoka formation.

Good showing in Inglewood Field, California, at shallow depth, leads to payment of $500,000 for lease on additional 1,000 acres.

Roxana Petroleum Corp.'s refinery at Arkansas City, Kans., nearing completion.

R. L. ARMITAGE has rejoined the Smith Separator Company in the capacity of sales representative.

* * *

R. C. STAMETS, manager of tubular good sales, of the Oil Well Supply Company, Dallas, Tex., was in Tulsa last week.

* * *

SIR ROBERT and LADY WALEY COHEN have gone to Rome from the south of France. They will return to England during the first week in April.

* * *

SHEP MEIERS, sales representative, Kerotest Manufacturing Company, Pittsburgh, Pa., called on the oil country trade in Tulsa and vicinity last week.

* * *

FRED E. COOPER, distributor of Allis-Chalmers Mamufacturing Company's oil field equipment, Tulsa, is on a trip through the Texas and Louisiana fields.

* * *

P. H. (PAT) O'NEIL, formerly with the Red Star Petroleum Company and then with California Petroleum Corporation, has become a director of the Texas Corporation.

* * *

DR. R. K. FISCHER, chief engineer of the Foster Wheeler, Ltd., has returned to the London, England, offices of the company after a business trip to New York City.

* * *

J. J. WELCH, formerly metallurgist for Key Boiler Equipment Company, has joined the organization of Century Foundry, St. Louis, Mo., as technical adviser to the sales department on alloy castings.

* * *

G. A. TOMPSON, purchasing agent, Empire Companies, Bartlesville, Okla., is back at his desk after having undergone a surgical operation in St. Lukes Hospital, Kansas City. He is greatly improved in health.

* * *

NORMAN M. SNIDER, of Detroit, has been named the fifth member of the Michigan Public Utilities Commission which is now spending about 60 per cent of its time in the administration of oil and gas propositions.

* * *

WESLEY G. GISH, manager of the land and geological departments for the Sinclair Prairie Oil Company, his wife and baby, are all confined to their home in Fort Worth, Tex., with scarlet fever.

* * *

H. C. WHITE, district manager of the Shreveport, La., division for Frick-Reid Supply Corporation, was a Fort Worth, Tex., business visitor during the week. Mr. White was formerly in Fort Worth.

* * *

L. A. WILLIFORD, of the Macmillan Petroleum Corporation, and T. R. McINTYRE, of the General Petroleum Corporation, discussed several papers at the last monthly meeting of the Los Angeles Petroleum Accountants Society.

* * *

T. B. MARSHALL, president and treasurer, and J. W. CLUNE, first vice president of the Wellington Oil Company of California, were re-elected to their respective offices at the annual meeting of the company held in Los Angeles, April 2.

* * *

ROY JOHNSON, of Ardmore, Okla., and L. H. PRITCHARD and ROBERT F. KERR, of Oklahoma City, Okla., have been appointed by Governor W. H. Murray as the State's official representatives to the International Petroleum Exposition in Tulsa.

* * *

PAUL R. MEADERS, independent operator of San Antonio, Tex., and Shreveport, La., who, in partnership with EARLE P. HALLIBURTON, has just completed a couple of wells in the Converse Field of Louisiana, was a Fort Worth, Tex., visitor during the week.

Vacation Meant Chance to Be Home

When George W. Walden, senior vice president of the Standard-Vacuum Oil Company, is at home it means he is on a visit or possibly having a short vacation. At least this was the situation until he accepted his new responsibilities the first of the year and established permanent headquarters at 26 Broadway, New York City. Previously over a period of 10 years he had averaged a journey around the world and a trip to South America yearly.

GEORGE W. WALDEN

Mr. Walden's start in the oil business was along prosaic lines. He went to work for the original Standard Oil Company in 1908 as office boy in the manufacturing department. Working days he studied in night school at the Pratt Institute in Brooklyn and Columbia University. His work attracted the attention of S. B. Hunt, who retired last year as one of the major executives of the Standard Oil Company of New Jersey. He became secretary to Mr. Hunt at the time the latter was chairman of the manufacturing committee previous to 1914.

He left the service of the company to take part in the World War and was captain of the 101st Aero Squadron in France when hostilities ended. He returned to the Standard company and was sent to West Virginia as a tool dresser and roustabout, staying there three years and then putting in several months in the Oklahoma fields.

At this point Mr Walden started traveling, going into the Argentine in 1921 with the first drilling rig. He spent two years there followed by similar activity in Batavia, Dutch East Indies. He then returned to the New York headquarters of the company, where he was assistant to the director in charge of foreign operations. This was followed by a four-year connection with the Nederlandsche Koloniale Petroleum Maataschappij, a subsidiary unit operating in the Dutch East Indies whose properties are now a part of the newly organized Standard-Vacuum Oil Company, a merger of the Far East properties of the Socony-Vacuum Oil Corporation and the Standard Oil Company (New Jersey). He has spent the last several years commuting between the New York offices, the East Indies and European points.

R. A. JOSEY, oil man, has given $2,000 to the Houston, Tex., Antituberculosis League.

* * *

A. J. DOREMUS has been placed in charge of the New York City offices of the Maritime Oil Company.

* * *

JOHN PUNDT, of Dallas, Tex., oil operator, has announced his candidacy for the Texas Railroad Commission.

* * *

BOB ROSE, of the Bob Rose Drilling Company of San Antonio, Tex., spent the first part of the week in Houston, Tex.

* * *

WILLIAM J. RAWSON, driller, of Petrolia, Ontario, is engaged on a contract for recasing salt wells at Goderich, Ontario.

* * *

GEORGE OTIS SMITH, former director of the U. S. Geological Survey, is spending a short vacation in San Francisco, Calif.

* * *

A. L. WEIL, president, and R. A. SPERRY, S. J. DICKEY, W. L. McLAINE, and A. H. DeFRIEST, vice presidents of General Petroleum Corporation, were re-elected to their respective positions at the annual meeting of the company.

* * *

J. C. KENNEDY has been named superintendent of land and lease operations of the Empire Oil & Refining Company and Cities Service Gas Company following the resignation of J. E. GRATTAN, who will enter other business. Mr. Kennedy will report to J. M. NISBET, manager of the land and geological division. Announcement was made by H. R. STRAIGHT, vice president and general manager.

CHARLES S. HILL and H. A. AURAND, Denver, Colo., oil men, were in Casper, Wyo., last week.

* * *

JAMES GILLAN, of Oilmont, Mont., has joined the field force of R. C. Tarrant in the Cut Bank Field in northern Montana.

* * *

H. C. BRETSCHNEIDER, of Denver, Colo., former Midwest Refining Company executive, was in Casper, Wyo., several days last week.

* * *

FRED PLATT, of Shelby, Mont., one of the pioneer operators in the Kevin-Sunburst oil field, has been making an investigation of the Cut Bank Field.

* * *

W. HUNTER ATHA, manager of the Atha Supply Company, has returned to Mount Pleasant, Mich., after spending several weeks in St. Petersburg, Fla.

* * *

BEDFORD SHARP, of the Mission Manufacturing Company, of Houston, Tex., is spending two weeks in New York City making his headquarters at the Yale Club.

* * *

T. EVANS has been appointed lecturer in fuel technology to the new Department of Fuel Technology, which has been instituted at the University College at Cardiff, Wales.

* * *

R. B. ELLISON, president of the Stanolind Pipe Line Company, has returned to his office in Tulsa from Colorado Springs, Colo., where he was called by the illness of his mother.

* * *

HAROLD and ARTHUR DAVIDOR, of the Atlantic Seaboard Natural Gas Company, Inc., of Coudersport, Pa., have established headquarters in Mount Pleasant, Mich., where new operations are contemplated.

* * *

WALTER FALKNER, driller for F. H. Stover & Son in the Dover Field of western Ontario, narrowly escaped death while pulling casing from a recently completed well. The rigging collapsed but Mr. Falkner emerged unharmed from several tons of wreckage.

* * *

FRANK M. KING, assistant cashier of the Baltimore, Md., offices of the Standard Oil Company of New Jersey, recently received his 40-year service button.

* * *

L. H. FREEDMAN, chief geologist, and W. C. KELLEY, of the land department, Snowden & McSweeney Company, in Fort Worth, Tex., are spending a few days in Lansing, Mich., on business.

* * *

W. DOW HAMM, assistant exploration manager, and J. W. SELBY, chief scout for Shell Petroleum Corporation in Houston, Tex., are spending a week or 10 days with the company's scouts throughout the West Texas area.

* * *

O. B. T. FRASER, manager of the research and development department of the International Nickel Company, is now on a trip to the oil fields of the Southwest. He will attend the oil exposition shows at Houston, Tex., and Tulsa.

* * *

R. OGARRIO, vice president and manager of production; R. F. BAKER, chief geologist and assistant to vice president, and V. L. PORTER, assistant to manager, all of New York City; and J. A. BERMINGHAM, vice president and manager of the Texas Company (California), of Los Angeles, attended a meeting of the company's district managers of production during the past week in Houston, Tex. Among district managers of the Texas Company present for the meeting were L. E. BARROWS, Fort Worth, Tex.; E. R. FILLEY, Tulsa; A. R. WILSON, Denver, Colo.; R. C. STEWART, Shreveport, La.; J. L. McMAHON, Wichita Falls, Tex.; and FRED SEALEY, of Houston.

MARKET RECORD OF OIL SECURITIES

Active Oil Stocks Listed on New York Stock Exchange

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1934 High	1934 Low	Week ended April 7 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	1933 High	1933 Low	1932 High	1932 Low	1931 High	1931 Low
53¾	41½	18,300	53¾	49¼	53	Amerada Corp.	774,875	N.P.	50cQ	1-31-34	47⅝	18½	22¾	12	23	11¼
35¼	28¼	16,800	31⅜	30	30⅛	Atlantic Refining	2,673,834	$25	25cQ	3-15-34	32½	12⅜	21⅞	8⅝	23⅝	8⅝
10	7¾	36,600	9¼	8¼	9¼	Barnsdall Corp.	2,186,385	$5	....	5-11-31	11	3	7	3⅜	14½	4
19¼	11⅜	36,800	15⅞	14⅝	15¼	Columbia Gas & Elec.	11,610,036	N.P.	12½cQ†	2-15-34	28⅛	9	21	4¼	45⅝	11⅝
14¼	9¾	35,600	12⅞	12¼	12⅝	Consolidated Oil Corp.	14,218,835	N.P.	28c	4- 7-34	15¾	5	9	4	75⅞	4⅛
20¾	16½	47,500	20⅜	19⅝	20⅛	Continental Oil of Delaware	4,738,593	$5	25c	4-30-34	19⅝	4⅞	9⅝	3⅝	12	5
21¾	15⅛	1,500	20¼	18⅜	20	General Asphalt	387,149	$10	....	6-15-32	27	4⅝	15½	4¾	47	9⅝
5⅝	4⅜	15,100	5⅝	4½	5½	Houston Oil (new)	1,098,618	$25	....	10-17-30	7⅝	1⅞	5⅝	1⅛	14⅛	3
3⅜	1⅜	33,200	3⅜	2	2⅝	Louisiana Oil Refining	1,302,158	N.P.	....	.....	4	⅝	2¼	½	4½	1
14⅜	11⅝	13,900	14¼	13½	13⅞	Mid-Continent Petroleum	1,857,912	N.P.	25c	5-15-34	16	3¾	8⅞	3¾	16¾	5
18¾	11½	7,100	18	15½	16¾	National Supply of Delaware	382,501	$25	....	5-15-31	28⅝	4	13	3½	70¼	5
15⅞	12⅝	25,600	14⅜	13½	13⅞	Ohio Oil Co.	6,563,107	N.P.	....	12-15-32	17⅝	4¾	11	5	19½	5¼
8¼	6½	9,000	8¼	6⅞	7¾	Pacific Western Oil	1,000,000	N.P.	25c‡	10-25-33	9½	3	8	3	15	2⅞
2½	1¼	16,000	2½	1⅝	2½	Panhandle P. & R.	198,770	N.P.	....	.....	4¼	⅝	1¼	¼	4¼	⅝
20	15⅛	55,200	20	19	19¾	Phillips Petroleum	4,155,113	N.P.	25c	2-15-34	18¾	4¾	8⅛	2	16⅝	4
16¾	12⅝	13,600	15	14	14	Plymouth Oil Co.	990,261	$5	25cQ	3-31-34	17⅝	6¾	12½	6	19	6
14⅞	10⅛	25,000	13¼	12¼	12¼	Pure Oil	3,038,370	N.P.	....	9- 1-30	15⅜	2½	6½	2⅞	11⅞	3¼
39⅛	36	100	36½	36½	36½	Royal Dutch N. Y. shares	432,224	$14	$1.07½	8-14-33	39¾	17⅝	23¾	12⅛	42⅝	13
38⅛	25⅜	25,400	38⅛	36	37	Seaboard Oil of Delaware	1,204,460	N.P.	15cQ§	3-15-34	43⅜	15	20⅜	6⅝	20¾	5½
11⅞	7⅝	5,200	10⅛	9¾	10	Shell Union Oil	13,070,625	N.P.	....	6-30-30	11⅝	4	8¾	2½	10¼	2½
89	58	400	79	78	79	Shell Union Oil pfd.	400,000	$100	....	7- 1-31	61	28½	65¼	18	78	15
11¼	9	900	10¼	9¾	10	Simms Petroleum	461,000	$10	25c	1-17-34	12⅜	4⅞	7½	3¼	11	3½
11½	7⅞	3,200	11	10⅜	11	Skelly Oil	1,008,514	$25	....	12-15-30	9⅞	3	5¾	2½	12⅞	2
19⅞	15⅛	48,000	17⅛	16⅛	17	Socony-Vacuum	31,019,694	$25	15c	3-15-34	17	6	12¼	5¼	21	8¾
42⅞	36⅝	25,600	38¼	36⅝	37⅝	Standard Oil of California	13,102,900	N.P.	25c	3-15-34	45	19½	31⅞	15⅛	51¾	23¼
38¼	33⅞	2,100	38¼	36⅝	37	Standard Oil of Kansas	200,000	$10	50cQ	4-30-34	39⅞	12¾	16½	7	19	7¾
50⅛	44¼	36,600	46⅜	45⅛	46⅜	Standard Oil of New Jersey	25,740,965	$25	50cSA	12-15-33	47½	22¾	37⅜	19⅞	52½	26
61½	51½	2,200	61⅜	60⅛	61⅜	Sun Oil	1,591,110	N.P.	25cQ	3-15-34	59	35	39⅞	24⅜	45¼	26⅜
29⅜	23½	23,300	27⅜	26⅞	27½	Texas Corp.	9,486,417	$25	25cQ	4- 1-34	30⅛	10⅜	18¼	9¼	36¼	9⅞
6½	3⅛	145,200	6½	4	4¾	Texas Pacific Coal & Oil	880,703	$10	....	12-31-29	6½	1⅜	4	1½	6½	1⅞
12	8½	46,400	12	11¼	11⅞	Tide Water Associated	5,613,800	N.P.	....	2-16-31	11⅜	3⅛	5⅝	2	9	2¼
77½	64½	600	77	74⅞	77	Tide Water Associated pfd.	666,524	$100	$1.50Q	12-23-33	65¼	23½	60	20	68	20½
20½	15⅞	6,900	18⅜	16⅞	18⅛	Union Oil of California	4,386,070	$25	25cQ	2-10-34	23⅜	8½	15⅜	8	26⅝	11
21	15⅝	1,300	19⅜	18	19	Union Tank Car	1,200,000	N.P.	30cQ	3- 1-34	22¾	10½	19¼	11¾	25⅛	16
5¾	3⅝	16,500	5¾	4¾	5¼	Wilcox Oil & Gas	424,839	$5	....	5-10-28	5½	2	8¾	2¾	9⅜	2⅜

*Ex-dividend. †Payable in 5 per cent convertible preferred stock. ‡Initial dividend. §Plus extras.

Active Oil Stocks Listed on New York Curb

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1934 High	1934 Low	Week ended April 7 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	1933 High	1933 Low	1932 High	1932 Low	1931 High	1931 Low
38	31¾	250	32	31¾	31¾	Buckeye Pipe Line Co.	200,000	$50	75cQ	3-15-34	39¾	25	35	17½	56	30
5½	2¾	8,800	5¼	4½	4½	Carib Syndicate	579,000	25c	....	.....	7⅜	¼	¾	¼	2⅜	¼
120½	118½	No sales ..	..	..	..	Chesebrough Mfg. Co.	120,000	$25	$1Q†	3-30-34	129	71	90	53	129½	75
4¼	1⅜	26,000	3	2¾	3	Cities Service	37,804,394	N.P.	....	6- 1-32	6¼	1½	6⅞	1¼	20¾	5
3¼	1¼	2,100	3	2¾	2⅞	Colon Oil	2,200,000	N.P.	....	.....	4	¼	1¼	¼	3⅛	¼
3⅞	1⅝	2,000	3⅛	2¾	3	Cosden Oil	399,687	$1	....	.....	3⅞	1⅜	2⅞	¼	3¾	⅜
13	9⅝	5,000	11⅝	11¼	11¼	Creole Petroleum	6,974,356	$5	....	.....	12	4¾	3⅛	1¾	3⅞	1⅝
7½	4¾	No sales ..	..	..	..	Darby Petroleum	509,696	$5	25c	2-15-34	8	2⅛	7⅛	1⅝	2½	1⅝
2¼	1⅝	800	2¼	2	2¼	Derby Oil & Refining	263,162	N.P.	....	.....	2¾	⅞	3	1	6	1½
35¾	31	No sales ..	..	..	..	Eureka Pipe Line	50,000	$100	$1Q	2- 1-34	41¾	20	35	18	36	19
76¾	58½	5,100	69½	66⅞	67	Gulf Oil Corp.	4,538,101	$25	....	10- 1-31	62	24	44¾	23	75½	25⅝
45	33½	13,800	45	43½	44½	Humble Oil & Refining (new)	8,923,935	N.P.	25cQ	4- 1-34	105½	40	55	35⅝	72	44½
14½	12⅝	13,000	14½	14⅛	14⅜	Imperial Oil of Canada	26,742,792	N.P.	12½c‡	3- 1-34	15⅞	6½	10⅞	6¼	18¼	7⅜
6⅞	3⅞	200	5⅞	5¾	5⅞	Indiana Pipe Line	300,000	$10	15cSA	5-15-34	8	3⅛	7½	2¾	21⅛	5¼
24⅜	19⅜	17,900	24⅜	23½	24¼	International Petroleum	14,247,088	N.P.	28cQ‡	3-15-34	23½	8⅞	12¼	8	15½	7⅜
3⅜	2⅛	14,100	3⅜	2¾	3¼	Louisiana Land & Exp.	3,000,000	N.P.	....	.....	2¼	⅛	2½	½	2	½
5⅞	4	No sales ..	..	..	..	Lion Oil Refining	270,000	N.P.	....	10-27-30	9½	1¼	3½	⅞	6¾	1½
8¾	5¾	1,000	6¾	6½	6½	Lone Star Gas	5,382,723	N.P.	16cQ§	3-31-34	11⅞	4¾	11	3⅜	29	5½
5⅜	4	2,000	4⅞	4⅝	4⅞	Mountain Producers	1,682,182	$10	15cQ	4- 2-34	6½	2½	4¾	2⅛	5⅞	2
15¼	14	800	14½	14¼	14½	National Fuel Gas	3,810,183	N.P.	25cQ	4-16-34	20	10	14⅝	8	26½	9⅝
9½	8	400	9½	8¾	8¾	National Transit	509,000	$12.50	40cSA	12-15-33	10	5½	10½	6	17½	5
2⅛	1¾	1,300	2	1⅞	..	New Bradford Oil	1,445,202	$5	10c	3-15-34	2⅛	½	⅞	¼	1½	⅛
2¾	1	14,800	2¾	1½	1¾	New Mexico and Arizona	1,000,000	$1	....	.....	1⅞	½	1¼	⅜	3	¾
4¾	3	100	4	4	4	New York Transit	100,000	$5	15cSA	4-14-34	4⅞	3	9¾	7½	14½	5⅞
7	4⅝	No sales ..	..	..	..	Northern Pipe Line	120,000	$10	25cSA	1- 2-34	6⅛	4¼	5½	3⅛	35½	20
2⅝	⅞	17,000	2⅝	2¼	2⅜	Pantapec Oil	1,608,700	N.P.	....	.....	3¾	⅛	⅝	1/16	2	⅜
3⅛	1¼	2,600	3	2¾	2¾	Ryan Consolidated	296,931	N.P.	....	.....	4¼	⅝	2⅛	⅝	3	⅜
7¼	5¾	2,000	7¼	6¾	7¼	Salt Creek Producers	1,496,859	$10	20cQ	5- 1-34	9¼	3½	5½	2⅞	7⅝	2¾
23⅞	17½	3,700	23¾	21½	23¼	South Penn Oil	1,200,000	$25	30cQ	3-31-34	22⅛	11	16½	9⅝	23⅞	9¼
4¾	4	200	4	4	4	Southern Pipe Line	100,000	$10	10cSA	3- 1-34	6	2⅛	10	3¾	17	7
47	41	No sales ..	..	..	..	Southwest Penna. Pipe Lines	35,000	$50	$1Q	4- 2-34	43	24½	37	27	42½	25
32¾	26⅛	19,500	27⅝	26⅝	27¼	Standard Oil of Indiana	15,941,894	$25	25cQ	3-15-34	34	17	25⅛	13⅛	38½	13⅛
17⅝	14⅝	6,000	17¼	16	17¼	Standard Oil of Kentucky	2,606,983	$10	25cQ	3-15-34	19¼	8⅜	15⅞	8⅞	23⅝	12⅛
16⅝	13½	No sales ..	..	..	..	Standard Oil of Nebraska	190,822	$25	25cQ	3-20-34	20½	11	19	10¼	36½	16
27½	23¼	300	24¼	24⅛	24⅛	Standard Oil of Ohio	753,740	$25	....	1- 3-33	41	15½	30⅛	15½	62½	23
2	1/16	2,200	1¾	1½	1⅝	Sunray Oil	1,162,840	$5	....	4-15-31	1½	¼	⅝	⅛	5¼	¼
11	5⅝	4,800	7⅜	6⅝	7⅜	Texon Oil & Land	936,028	N.P.	15c	3-31-34	13¾	6¼	10½	4½	12⅞	2½

*Ex-dividend. †Plus extras. ‡Payable in Canadian funds. §Payable in preferred stock.

Note—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

Gulf Coast Fields

(Continued from Page 89)

Harris Survey, has been abandoned at 4,856 feet. It had salt water sand from 4,830-50 feet. Steen Drilling Co. is reported to have taken a block of around 3,000 acres out of the 9,000-acre option from Texas Long Leaf Lumber Co., and is to drill a test which will start soon. The block is about 3½ miles west of Shepard in the south part of the county.

Jefferson County

In Jefferson County, Sun Oil Co.'s No. 1 Long, on 1,000-acre tract in the John Blair Survey, was drilling hard sand rock at 6,244 feet.

SOUTH LOUISIANA

In Calcasieu Parish Steinberger Petroleum Corp. has assembled a block of approximately 5,000 acres southwest of Sulphur for a 7,000-foot test which will be started within the near future. The block centers around Section 24-10s-11w and extends over into 10s-10w. The block includes a part of an old Pure block upon which two shallow wells were drilled. The test is to be started by July 1 and will be drilled on the basis of torsion balance work checked with reflection seismograph.

One mile north of production at Edgerly, Union Sulphur Co.'s No. 1 Louisiana Prairie Narronne was drilling at 4,375 feet in shale. In the west extension area of the Lockport Field, Magnolia Petroleum Co.'s No. 11 Bordages was drilling shale with streaks of sand at 7,402 feet.

In the Hackberry Field of Cameron Parish, Texas Co.'s No. 11-B State, which opened a new producing horizon on the east flank of the field, was last reported making 330 bbls. net oil daily. It had sandy lime from 6,078-92 feet and came in flowing at the rate of 600 bbls. fluid daily, 80 per cent of which was salt water.

Union Sulphur Co.'s No. 1 Barbe Estate, one of the most watched wells at present, is nearing the deepest oil sand so far encountered in the Hackberry Field, and late in the week was drilling shale at 7,976 feet. It is thought the well still has about 350 feet to go before reaching the depth of the two wells in which the sand was found to exist. The other two wells producing from this sand are Union Sulphur's No. 1 and 2 Pure.

At Roanoke

At Roanoke, in Jefferson Davis Parish, Humble Oil & Refining Co.'s No. 2 DeVilbiss was swabbing oil, gas and wash water from 6,500 feet. Screen is set in perforated pipe at 7,705 feet. The well was plugged back after reaching a total depth of 8,423 feet. Shell Petroleum Corp.'s No. 1 Kratzer was coring brittle shale at 8,004 feet.

The Iowa Field in Jefferson Davis Parish was extended eastward during the past week when Barnsdall Oil Co.'s No. 4 Fontenot came in flowing at the rate of 50 bbls. oil hourly through 23/64-inch choke. It is now estimated good for 1,500 bbls. daily with total depth 6,941 feet in shale.

In St. Martin Parish, Continental Oil Co. and others' No. 1 Standard of Kansas was drilling below 7,764 feet in sand.

On the Bosco prospect in Acadia Parish, Superior Oil Co. of California's No. 1 Hermandes was drilling below 8,787 feet in shale. At present this is the deepest drilling hole in the Gulf Coast.

At Darrow, in Ascension Parish, Turnbull & Irwin's No. 1 Community in Section 32-10s-2e has been completed for estimated 50 bbls. oil daily. It is now shut in with pressure of 500 pounds.

In the Dry Creek area of Beauregard Parish, Humble Oil & Refining Co.'s No. 1 Long Bell was drilling at 7,635 feet.

The following revisions of the allowables in coastal Louisiana which went into effect April 1 were announced by J. A. Shaw, director of the minerals division of the department of conservation for Louisiana. Major changes were made in Iowa, Lockport and Leesville. Iowa Field was cut from 12,900 bbls. daily to a daily allowable of 12,000 bbls., while Lockport was reduced from 2,175 bbls. to 1,500 bbls. Leesville was increased from 2,500 bbls. to 4,500 bbls. daily. Total for coastal Louisiana is 46,300 bbls.

Wildcat Operations in Oklahoma

(Continued from Page 84)

OKLAHOMA COUNTY

Gypsy Oil Co. et al's No. 1 Harris, C SW NE Sec. 27-12-4w ..... Cellar.
Springrose Drlg. Co.'s No. 1 Edwards, C SE Sec. 19-11-1 ..... T.D. 6,079 ft.; acidized in Hunton lime; flowed 362 bbls. in 24 hrs. through tubing.

OSAGE COUNTY

Peters Pet. Co. and Norbla Oil Co.'s No. 1, SW cor. Sec. 15-25-5 ..... S.D. 300 ft.
Empire O. & R. Co.'s No. 1, SE NE Sec. 3-25-3 ..... Drlg. 1,280 ft.

PAWNEE COUNTY

Geo. Thomas' No. 1 School Land, SW cor. Sec. 13-20-5.. Drlg. 1,245 ft.

PITTSBURG COUNTY

Arkhoma's No. 1 Cummings, NW NE SE Sec. 6-4-12... Fishing 515 ft.
W. E. Halley's No. 1 Drew, NW SW Sec. 21-3-14w ..... Drlg. 150 ft.
Mid-Western Oil & Gas Co.'s No. 1 Shelton, CSL SE NW Sec. 7-7-13 ..... Drlg. 2,306 ft.
Moffett & Hall's No. 1 Jones, C NE NW Sec. 14-8-14 .... Lost tools; T.D. 3,200 ft.; S.D.
C. L. Carlock's No. 1 Chunn, SE NW Sec. 29-4-14 ..... Moving in tools.

PONTOTOC COUNTY

E. M. Blanchard's No. 1 Crabtree, NE SE NE Sec. 27-2-6.. Drlg. 150 ft.
Emanuel, Rudman & Hatcher's No. 1 Mayer, C SW SE NW Sec. 7-3-8 ..... Drlg. 120 ft.
Delaney et al's No. 1 Dawes-Hardin, SE NW Sec. 30-2-7.. Drlg. 1,250 ft.

POTTAWATOMIE COUNTY

Texas Pacific's No. 1 Franklin, SW NW SW Sec. 10-9-4. Drlg. 4,225 ft.
W. E. Witt et al's No. 1 Atwater-Fundis, NE NW NE Sec. 33-8-3 ..... Cellar.

SEMINOLE COUNTY

Carter Oil Co. et al's No. 1 Jarvis, C E½ NE SW Sec. 18-10-6 ..... Wilcox 4,593-96 ft.; 2,500 ft. of oil in hole.
Harman Oil Co.'s No. 1 Bowlegs, SE NE SW Sec. 1-7-7 ..... C.O. to drill deeper.
Flemlee et al's No. 1 Bowlegs, SE NE SW Sec. 1-7-7.... S.D. 1,260 ft.

Southern Oklahoma

ATOKA COUNTY

J. D. Boukan's No. 1 Howard, NW SW NW Sec. 20-2s-10e. Drlg. 1,135 ft.
Brookshire et al's No. 1 Rowland, NW NE NE Sec. 18-3s-10e ..... T.D. 3,443 ft.; fishing.

GARVIN COUNTY

National Prod. Co.'s No. 1 Littrell, NE cor. Sec. 31-2n-3w. S.D. 299 ft.

McINTOSH COUNTY

Malernee et al's No. 1, NW SE Sec. 36-12-13..... Drlg. 1,635 ft.

MARSHALL COUNTY

Paul Robb's No. 1 Vittetoe, C NE SE Sec. 11-5s-4e..... Drlg. 3,724 ft.

MURRAY COUNTY

T. E. Revell et al's No. 1 Wolfe, NE cor. Sec. 18-1-2.... Drlg. 2,200 ft.

PUSHMATAHA COUNTY

J. V. Scrivener et al's No. 1 Swink, C NE SE Sec. 19-4s-20e ..... Setting csg. 410 ft.
Whitehead et al's No. 1 Messer, SE SW SW Sec. 35-3s-18e. T.D. 2,405 ft.; S.D.

STEPHENS COUNTY

J. W. Madison's No. 1 Tussey, SW SE NW Sec. 24-1n-4w.. S.D. 3,210 ft.
Geo. Pace et al's No. 1 Siever, SE SW Sec. 4-1n-7w ..... Rig.
MacMo Oil Co.'s No. 1 Butler, SW NW SE Sec. 36-2s-7w.. S.D. 20 ft.

TILLMAN COUNTY

J. H. Everett's No. 1 Crane, SW cor. Sec. 15-3s-14w ..... Rig.

Gulf Coast Fields and Wildcats

(Continued from Page 89)

Texas Co.'s No. 4 O. F. Ewing, 415 ft. from NW line. Lot 8, and 787.2 ft. from NE line, H. N. Little Sur... T.D. 5,850 ft.; P.B. 4,035 ft.; comp. 860 bbls., ¼-in. choke, gravity 24.8; 30 ft. of 5-in. screen.
Texas Co.'s No. 2 Scopal, 200 ft. N and 200 ft. W from SE cor. of lease ..... Location abandoned.
Turnbull & Irwin's No. 1 Marachini, 300 ft. from NE line and C of E and W lines of 5-acre tract in C. O'Donnell Sur. No. 493 ..... T.D. 5,398 ft.; D.S. test showed 14 fourbles salt water 5,176-84 ft.; abnd.

STRATTON RIDGE—BRAZORIA COUNTY

Amerada Pet. Corp.'s No. 5 Seaborn, Austin-Williams Sur., 600 ft. E of No. 3 and 229 ft. S at R/A ..... Cmtd. cavity at 6,940 ft.

WEST COLUMBIA—BRAZORIA COUNTY

Miramar Oil Corp.'s No. 1 Hogg, Martin Varner league (second hole), 75 ft. N of first hole ..... Drlg. shale 5,550 ft.

BARBERS HILL—CHAMBERS COUNTY

Mills Bennett Prod. Co.'s No. 1-D Barber, 78 ft. S, 65 ft. W of NE cor. ..... Shale 4,792 ft.; cmtd. back to 3,754 ft.; top oil sand 3,873 ft.; T.S. 4,425 ft.; T.D. 4,441 ft.; cmtd. back to 4,370 ft.; set 36 ft. of 5-in. O.D. screen; making 900 bbls. .2% wash water, 26 gravity on ¾-in. choke, 440 lbs.; comp.
Mills Bennett Prod. Co.'s No. 3-C Gulf fee, 442 ft. W along S line and 710 ft. N at right angles to S line ..... T.D. 4,876 ft.; preparing to work over.
Humble O. & R. Co.'s No. 5-B Kirby, Henry Griffith League, 928 ft. W of E line, 537 ft. N of S line of tract ..... Top salt 1,620 ft.; drlg. salt 4,163 ft.
McAlbert Oil Co.'s No. 3 Wilburn, Henry Griffith league.. O.T.D. 5,317 ft.; T.D. 5,315 ft., sand; swabbing little oil, no water.
Moody Corp.'s No. 5-A E. W. Barber, 100 ft. E of W line and 70 ft. N of S line of lease ..... Location.
Sinclair Prairie Oil Co.'s No. 15 Wilburn, Henry Griffith League, 150 ft. W of No. 14 ..... Oil sand 4,830-70 ft.; swabbed fresh water; no oil; sidetracking at 4,075 ft.
Sinclair Prairie Oil Co.'s No. 17-A Wilburn, 150 ft. W of No. 13 ..... Lost returns at 860 ft.; drlg. 865 ft.
Sun Oil Co.'s No. 15 Wilburn, 405 ft. from E. 50 ft. from W line ..... Drlg. shale and shells 4,500 ft.
Sun Oil Co.'s No. 16 Wilburn fee, 120 ft. W of No. 15 and 40 ft. from N line of 20-acre tract in William Hodges Sur. ..... T.D. 1,496 ft., salt; waiting on csg.
Sun Oil Co.'s No. 18 J. Wilburn, Henry Griffith League, 50 ft. N of S line, 50 ft. E of W line of lease ..... T.D. 4,524 ft.; P.B. 2,929 ft.; T.S. 4,465 ft.; set 9⅝-in. csg. 4,444 ft.; sand showing oil 4,485 ft.; drlg. rock 4,708 ft.
Sun Oil Co.'s No. 21 J. Wilburn, Wm. Hodges Sur., 50 ft. N of No. 20 ..... Top salt 1,396 ft.; drlg. salt 2,318 ft.
Sun Oil Co.'s No. 4 Higgins, Wm. Hodges Sur., 100 ft. W of No. 2 ..... Drlg. oil sand 3,613 ft.
Superior Oil Corp.'s No. 3-A Barber (W.O.), Henry Griffith League ..... Base salt 3,195 ft.; T.S. 4,341 ft.; set 6⅝-in. csg. 4,087 ft.; T.D. 4,320 ft.; comp. 900 bbls. through ¾-in. choke, 2% wash water, 445 l's. pressure.
Texas Gulf Prod. Co.'s No. 2 Barber, 514 ft. W, 41 ft. S of NE cor. of lease, Henry Griffith League..... O.T.D. 4,309 ft.; drlg. shale and lime 3,421 ft.
Texas Gulf Prod. Co.'s No. 2 Fitzgerald, 300 ft. from W and 80 ft. from S line of lease ..... To work over; T.D. 5,258 ft.; cut and pulled 7-in. csg. to 3,663 ft.
Texas Gulf Prod. Co.'s No. 12-B Kirby, Henry Griffith League, 80 ft. S of N line and direct offset of Texas Gulf's No. 2 J. M. Fitzgerald ..... Top salt 1,375 ft.; drg shale and lime 4,608 ft.
Texas Gulf Prod. Co.'s No. 8-H Kirby, 333 ft. W of No. 6-H, 70 ft. N of S line, Henry Griffith League (W.O.) ..... T.D. 5,024 ft.; sidetracked at 3,179-5,022 ft.; shot drill pipe at 2,750 ft.; waiting orders.
Texas Gulf Prod. Co.'s No. 4 Wilburn, Wm. Hodges Sur., 330 ft. N of S line, 50 ft. W of E line ..... T.D. 4,126 ft.; T.S. 4,123 ft.; fishing core barrel.
Yount Lee Oil Co.'s No. 23 Chambers County, Wm. Bloodgood Sur., 116.9 ft. S of N line and 247 ft. W of E line ..... T.S. 1,449 ft.; sand showing oil 3,772 ft.; reaming; to set csg.
Yount Lee Oil Co.'s No. 24 Chambers County, 400 ft. W of No. 23 in line with No. 21 ..... Location.
Yount Lee Oil Co.'s No. 7 Phillips, offset Sun Oil Co.'s No. 18 Wilburn ..... T.D. 4,477 ft., sand showing oil; set 26 ft. 5 9/16-in. O.D. screen; preparing to swab.
Yount Lee Oil Co.'s No. 8 Phillips, Wm. Hodges Sur. .... Derrick.

RABBS RIDGE—FORT BEND COUNTY

Humble O. & R. Co.'s No. 24-B Lockwood-Sharp, 1,153 ft. W of No. 18 ..... T.D. 5,461 ft.; abnd.
Humble O. & R. Co. and Gulf Prod. Co.'s No. 25-B Lockwood & Sharp, 2,882 ft. from E line and 376 ft. from N line of lease, J. Rabb Sur. ..... Drlg. gumbo 2,009 ft.
Humble O. & R. Co.'s No. 26-B Lockwood & Sharp, 1,153 ft. W of No. 25, J. Rabb Sur. ..... Drlg. 842 ft.
Humble O. & R. Co.'s No. 27-B Lockwood & Sharp, 1,153 ft. W of No. 26, J. Rabb Sur. ..... Location.

BIG CREEK—FORT BEND COUNTY

Porter et al's No. 2 Wheat ..... Set screen; making salt water and gas; waiting on orders.
C. & R. G. Drlg. Co.'s No. 1 Wheat ..... T.D. 5,085 ft.; dry and abnd.; T.S. 3,730 ft.
Gulf Stream, Inc.'s No. 1 Ahlers ..... Rigging up.

LONG POINT—FORT BEND COUNTY

Oleson et al's No. 1 McFarland ..... Cutting and pulling screen.

ORCHARD—FORT BEND COUNTY

Gulf Prod. Co.'s No. 39 Moore ..... Rigging up.

SUGARLAND—FORT BEND COUNTY

De Walt Oil Co.'s No. 1 Peterson ..... Top salt 4,512 ft.; T.D. 4,514 ft.; to plug back.

THOMPSON—FORT BEND COUNTY

Humble & Gulf's No. 25-B Lockwood & Sharp, J. Rabb Sur., 2,882 ft. E line, 376 ft. N line lease ..... Gumbo 2,009 ft.
H. M. Naylor's No. 4 S. B. Gehr (282 ac.), Samuel Kennedy Sur., 1,260 ft. from W line and 350 ft. from S line of lease ..... Gumbo 1,300 ft.

HIGH ISLAND—GALVESTON COUNTY

Yount Lee Oil Co.'s No. 4 Broussary & Orme, M. Dunman Sur., 139 ft. SW of No. 3 ..... T.D. 4,806 ft.; Top salt 4,565 ft.
Yount Lee Oil Co.'s No. 39 Cade, N. Fitzsimmons Sur., 1,000 ft. from W line, 580 ft. from S line of lease .... T.D. 5,417 ft.; T.S. 5,414 ft., sandy shale; show oil.
Yount Lee Oil Co.'s No. 40 Cade, 430 ft. NW of No. 2-B, 360 ft. from E line of lease and in line with No. 39 and No. 2-B, Fitzsimmons Sur. ..... Derrick.

Yount Lee Oil Co.'s No. 2-B Cade, 170 ft. from N line, 100 ft. from E line of 40-ac. lease, N. Fitzsimmons Sur. ..... T.D. 5,114 ft.; S.T. 4,870 ft., hard shale and lime.

Yount Lee Oil Co.'s No. 3 Mathis, M. Dunman Sur., direct offset No. 1 Spencer ..... Drlg. hard sandy lime and shale 2,695 ft.

Yount Lee Oil Co.'s No. 21 Smith, M. Dunman Sur., 360 ft. from W line, 1,485 ft. from N line of lease .. Drlg. hard sand and lime 5,063 ft.

ARRIOLA—HARDIN COUNTY

Republic-Houston's No. 2-X Arriola fee ..... Rig up.
Republic-Houston's No. 7 Arriola fee ..... T.D. 3,540 ft., sandy shale and lime; D.S. test 3,410-20 ft., through ¼-in. choke, 4 fourbles oil; no pressure.

BATSON—HARDIN COUNTY

Danciger O. & R. Co.'s No. 2 Hooks, W. Donoho Sur., 330 ft. E of CWL, Blk. 24 ..... Coring sand; show oil 4,790 ft.; T.S. 4,480 ft. (4,782 top); to set screen.

SARATOGA—HARDIN COUNTY

Rio Bravo Oil Co.'s No. 98 Jordit, 150 ft. N and 50 ft. W of No. 104 on 128-ac. tract in Jordit Sur. ..... T.D. 650 ft.; sand 638-50 ft.; pump. 13 bbls. oil, 5 bbls. water.

Rio Bravo Oil Co.'s No. 107 Jordit, 910 ft. from W line and 50 ft. from N line of lease, 150 ft. N of No. 103.. Drlg. 251 ft., gumbo.
Seismo Oil Co.'s No. 1 Casewell, 940 ft. S of NW cor. and 600 ft. from E line, B.B.B.&C. Sur. ..... T.D. 3,212 ft.; shut down.
Skinner Oil Co.'s No. 3 Sessler ..... Spudding.

SOUR LAKE—HARDIN COUNTY

Parr et al's No. 1 Benard, in W.C.R.R. Sur. No. 69 (west edge) ..... Top Dibollensis 6,885 ft.; T.S. showing oil 6,936 ft.; T.D. 6,994 ft.; set 7-in. at 6,886 ft.; W.O.C.

Steinberger Pet. Co.'s No. 1 Weiss, 150 ft. W of Parr No. 1 and 50 ft. out of SE cor. of Blk. 28, H. B. Williams Sur. ..... Location.

GOOSE CREEK—HARRIS COUNTY

Gulf Prod. Co.'s No. 13 St. Land Prod., 39 ft. from E line or 89.4 ft. W of Sun Oil Co.'s No. 1 McFarland, Wm. Scott Sur. No. 67 ..... Drlg. rock 1,769 ft.
Gulf Prod. Co.'s No. 23-A Wright, 50 ft. from N and W lines of NW cor. of Lot 8, A. A. Wright Subd., Wm. Scott Sur. No. 65 ..... Preparing to spud.
Hoffner & Moore's No. 1 A. A. Wright, 50 ft. N and 50 ft. E of SW cor. of Blk. 7, Wm. Scott Sur., Abst. No. 65 ..... Coring 4,500 ft.
Humble O. & R. Co.'s No. 79 Simms-Smith, Wm. Scott Sur., 50 ft. from N line, 150 ft. from W line of most southerly NW cor. ..... T.D. 5,415 ft.; P.B. to 3,430 ft.; W.O.C.
Miramar Oil Co.'s No. 1 Hughes ..... T.D. 4,016 ft.; I.P. 650 bbls., ⅝-in. choke, T.P. 200 lbs.

L. H. Puckett's No. 1 Scott, Wm. Scott Low League, 35 ft. from E line and 45 ft. from S line of 2½-acre tract ..... Drlg. shale 640 ft.
J. Simmonal' No. 1 Kerwin Mitchell, SE cor. of 6-acre tract ..... Derrick.

HUMBLE—HARRIS COUNTY

Texas Co.'s No. 47 Stevenson, J. B. Stevenson Sur., 859 ft. E, 457 ft. S of NW cor., Lot 1-A ..... T.D. 2,950 ft., hard sand and lime; small show oil and gas.

MYKAWA—HARRIS COUNTY

Crown Central Pet. Co.'s No. 3 Minnetex Subd., 125 ft. from W line and 100 ft. from S line of Lot 251, Wm. J. Lovett Sur. ..... Set 7-in. at 4,797 ft.; T.D. sand and shale 4,860 ft.; pump. 150 bbls. daily.

Framer O. & G. Corp.'s No. 2 Minnetex Subd., 193 ft. NE of SW cor. of lease, Minnetex Subd., Wm. Lovett Sur. ..... Drlg. shale 3,375 ft.

PIERCE JUNCTION—HARRIS COUNTY

Rio Bravo Oil Co.'s No. 24-A Settegast, J. Kopman Sur. No. 44, 1,000 ft. S, 200 ft. W of NE cor. of "A" lease.. T.D. 4,197 ft.; set 1 jt. 4½-in. screen; swabbed salt water; to deepen.

Rio Bravo Oil Co.'s No. 28-A Settegast, J. Kopman Sur. No. 44, 1,310 ft. N line, 750 ft. E line of "A" lease ..... T.D. 6,056 ft., sandy shale; fishing.

TOMBALL—HARRIS COUNTY

Amerada & Stanolind's No. 1 F. Rudel, 500 ft. from N line and 163 ft. from W line of W 30 acres of 80-acre tract in J. House Sur. No. 34 ..... T.D. 4,000 ft.; comp. for gas well; T.P. 1,950 lbs., C.P. 2,050 lbs.; shut in.

Humble O. & R. Co.'s No. 2 Emil Doege, C. Goodrich Sur., 300 ft. from E line, 466 ft. from S line of 90 acres ..... T.D. 5,576 ft.; W.O.C.
Humble O. & R. Co.'s No. 1 C. F. Hoffman, 1,900 ft. from S line and 466 ft. from E line of 123-acre tract, I.&G.N. Sur. No. 952 ..... Location.
Humble O. & R. Co.'s No. 2 C. F. Hoffman, 466 ft. E of most easterly W line and 466 ft. N of most northerly S line of 100-acre lease in J. House Sur.... Derrick.
Humble O. & R. Co.'s No. 2 Mary Jane Keuhn, 466 ft. from N line and 466 ft. from E line in W. Usner Sur. ..... Drlg. shale 4,386 ft.
Humble O. & R. Co.'s No. 2-A J. F. W. Kobe, 1,062 ft. from N and 623 ft. from W line of lease in J. M. Hooper Sur. ..... Rigging up.
Humble O. & R. Co.'s No. 2 J. W. H. Martens, Wm. Hard Sur. No. 277 ..... Drlg. shale 4,544 ft.
Humble O. & R. Co.'s No. 3-B Quilter, A. Senechal Sur., 466 ft. from E line and 1,946 ft. from N line of survey ..... T.D. hard sand 5,567 ft.; comp. for 2,000,000 ft. gas, ¼-in. choke.

Humble O. & R. Co.'s No. 1-C Hope Quilter, 660 ft. from N line and 330 ft. from W line of 340-ac. tract in A. Senchall Sur. ..... Drlg. shale 5,025 ft.
Humble O. & R. Co.'s No. 3 Reid, 466 ft. N of S line and 466 ft. W of E line of lease in Goodrich Sur. No. A-305 ..... Rigging up.
Humble & Magnolia's No. 2 Rudel-Oster, 150 ft. S of Amerada & Stanolind's No. 2 Fletcher, half way between E and W lines of 50-acre tract in J. House Sur. No. 34 ..... Location.
Humble O. & R. Co.'s No. 1 Ben Scherer, 1,000 ft. S of NW cor. and 338 ft. E of W line of 135-ac. tract in J. H. Edwards Sur. ..... T.D. 5,599 ft.; comp. 432 bbls. daily through ¼-in. choke.

Humble & Magnolia's No. 1 H. Theak, 200 ft. from E line and 2,500 ft. from S line of 180-acre tract in Wm. Hurd Sur. ..... Location.
Shell Pet. Co.'s No. 1 W. W. Baker, 440 ft. S of C of N line of lease, J. House Sur. No. 34 ..... Location.
Shell Pet. Co.'s No. 2 W. W. Baker, 630 ft. S of No. 1 and 466 ft. from W line of lease, J. House Sur. No. 34 ..... Location.
Skelly Oil Co.'s No. 1 Schultz, J. H. Edwards Sur., 456 ft. from S line, 404 ft. from E and W lines .... Rigging up.
Texas Co.'s No. 1 Wm. Hirsch, 163 ft. E and 466 ft. N of most westerly SW cor. of lease, J. House Sur. .... Soft oil sand 5,604-12 ft.; T.D. 5,612 ft.; washing in.

Windsor Oil Co.'s No. 2 Petrich, J. H. Edward Sur., 466 ft. out of SW cor. lease ..... T.D. 5,600 ft.; T.S. 5,592 ft.; set 7-in. at 5,590 ft.; comp. 50 bbls., 17 hrs., ⅜-in. choke.

Texas Co.'s No. 1 Albert Ziegler, 517 ft. E and 155 ft. S of NW cor. of Wm. Hurd Sur., elev. 189 ft. ..... Drlg. 4,362 ft., shale.

ESPERSON—LIBERTY COUNTY

General Crude Oil Co.'s No. 7 Davis (W.O.), Duncan Sur... T.D. 6,873 ft.; P.B. 4,143 ft.; T.D. 4,556 ft.; set 7-in. csg. at 4,537 ft.; W.O.C.

General Crude Oil Co.'s No. 10 Moore's Bluff, M. Duncan Sur., 1,500 ft. from E line and 2,100 ft. from N line of 632-acre tract ..... T.D. 6,524 ft.; P.B. 4,631 ft.; comp. 25 bbls. day.

HULL—LIBERTY COUNTY

Bashara Oil Co.'s No. 1 Hannah, Jessie De Vore Sur., 125 ft. E of Texas Co.'s No. 1 Hannah, 50 ft. N of S line ..... T.D. 3,733 ft.; W.O.C.
W. B. Flynn's No. 14 Abel, 90 ft. from N line and 150 ft. from E line of 10-acre tract in J. Devore Sur..... Drlg. 605 ft., shale.
Gulf Prod. Co.'s No. 97 Phoenix, 80 ft. N of No. 94 and 50 ft. from W line of lease ..... Drlg. sand 3,298 ft.
Houston Oil Co.'s No. 7 Orgain, 100 ft. W of No. 5 and 200 ft. S of No. 1 ..... Drlg. rock 1,078 ft.
Humble Oil & Ref. Co.'s No. 35 Guedry ..... T.D. 4,900 ft., shale; flowing into pits.

Humble Oil & Ref. Co.'s No. 37 Guedry, 50 ft. from S line and 50 ft. from W line of 43-acre tract ..... Drlg. 5,029 ft., shale.
Humble Oil & Ref. Co.'s No. 38 Guedry, 444 ft. from S and 50 ft. from E line of lease in J. Devore Sur. .... Location.
Republic Prod. Co.'s No. 104 Dolbear ..... Drlg. shale 2,807 ft.
Republic Prod. Co.'s No. 151 Dolbear, J. Devore Sur., 200 ft. E of No. 35 ..... Drlg. sand and shale 2,663 ft.
Sun Oil Co.'s No. 4-A Carr, 196 ft. due W of No. 3, 50 ft. from N line of lease ..... Derrick.
Sun Oil Co.'s No. 5-A Carr, 50 ft. from N line and 50 ft. from W line of most northerly NW cor. of lease, J. Devore Sur. ..... T.D. 4,950 ft.; set 7⅝-in. csg. 4,384 ft.; reaming.

Texas Co.'s No. 5 Barrow fee, 533 ft. S and 150 ft. W of NE cor. of lease in J. Devore Sur. ..... T.D. 4,955 ft.; 7-in. csg. at 4,281 ft.; to deepen.
Yount Lee Oil Co.'s No. 9 Hooks fee, Jesse DeVore Sur... T.D. 4,865 ft.; comp. 229 bbls. through 3/16-in. choke.
Yount Lee Oil Co.'s No. 10 Hooks fee, Jesse DeVore Sur., 50 ft. out of SE cor. lease ..... Drlg. shale 3,014 ft.

LIBERTY COUNTY

Mrs. I. M. Lemon Oil Co.'s No. 1 Richardson, 120 ft. E of Gulf & Humble's No. 1 Carter, in M. G. White Sur. ..... T.D. 3,882 ft.; rerun tubing; standing.

CONROE—MONTGOMERY COUNTY

Adeltex Oil Co.'s No. 2 Llewelen, R. G. Hamlett Sur., 466 ft. N, 159 ft. W, SE cor. lease ..... T.D. 5,211 ft.; drlg. shale 5,015 ft.
Gulf Coast Drlg. & Prod. Co.'s No. 21 Keystone Mills, 755 ft. W of No. 20, A. Steele Sur. ..... Drlg. shale 5,071 ft.
Gulf Coast Drlg. & Prod. Co.'s No. 28 Keystone Mills, A. Steele Sur., 723 ft. W of No. 13 ..... Drlg. 5,153 ft., sand.
Harrison & Abercrombie's No. 6 Alexander, John McHorse Sur., 466 ft. from W line and 300 ft. from S line ..... Drlg. 2,780 ft.
Houston-Tide Water Oil Co.'s No. 10 Cartwright, J. A. Davis Sur., 466 ft. from W and 1,263 ft. from S line of lease ..... Drlg. 955 ft.
Humble O. & R. Co.'s No. 3 American Natl. Bank, 751 ft. from N and 308 ft. from E lines of lease, W. Strickland Sur. ..... Drlg. 880 ft., shale.
Humble O. & R. Co.'s No. 1-E Cartwright, E offset to Brown & Wheeler's No. 1 Gilbert, J. A. Davis Sur... W.O.C. 5,164 ft.
Humble O. & R. Co.'s No. 11 Emory, W.C.R.R. Sur. No. 13 ..... Drlg. 1,200 ft., shale.
Humble Oil & Ref. Co.'s No. 5 Griffin, Wilson Strickland Sur., W offset No. 1-B Young ..... W.O.C. 5,110 ft.
Humble O. & R. Co.'s No. 21 Keystone Mills, A. Steel Sur. ..... Drlg. 3,082 ft.
Humble O. & R. Co.'s No. 31 Keystone Mills, A. Steel Sur.. T.D. 5,137 ft.; W.O.C.
Humble Oil & Ref. Co.'s No. 40 Madeley, N offset to No. 4 Moorhead, R. House Sur. ..... Drlg. shale 2,691 ft.
Humble O. & R. Co.'s No. 41 Madeley, 330 ft. NW of No. 40, R. House Sur. ..... Drlg. 2,025 ft., shale.
Humble O. & R. Co.'s No. 49 Moore, L. Smith Sur. ..... T.D. 5,128 ft.; comp. 96 bbls. hour, ½-in. choke.

Humble O. & R. Co.'s No. 50 Moore, L. Smith Sur. ..... Drlg. 525 ft.
Humble Oil & Ref. Co.'s No. 67-A South Texas, S offset to Alpha's No. 2 South Texas, T. Slade Sur. .... Drlg. shale 4,774 ft.
Humble Oil & Ref. Co.'s No. 2-A Young, S offset to Tide Water Oil Co.'s No. 4 American Natl. Bank, W. Strickland Sur. ..... Drlg. shale 4,999 ft.
Strake Oil Co.'s No. 6 Keystone Mills ..... Drlg. sand 200 ft.
Sun Oil Co.'s No. 17 Keystone Mills, 438 ft. from N and 1,444 ft. W of No. 9, A Steel Sur. ..... Drlg. shale 4,948 ft.
Texas Co.'s No. 3 Moody, 2,330 ft. from N and 466 ft. from W lines of tract, Ransom House Sur. ..... T.D. 5,134 ft.; comp. 18 bbls. hr., ¼-in. choke.

Tide Water Oil Co.'s No. 5 Eichletz, 362 ft. from W and 467 from N lines of lease, Lemuel Smith Sur. ..... T.D. 5,099 ft.; comp. 95 bbls. hour, ½-in. choke.

Tide Water Oil Co.'s No. 16 C. M. Dean, W. C. C. Lynch Sur. ..... T.D. 5,114 ft.; comp. 94 bbls. hour, ½-in. choke.

PORT NECHES—ORANGE COUNTY

Texas Co.'s No. 2 Orange Natl. Bank, Jacob Beaumont Sur., 1,538 ft. W and 200 ft. S of NE cor. of lease .. Drlg. shale and lime 5,173 ft.
Texas Co.'s No. 2-B Polk, 695 ft. N, 150 ft. S of NE cor. of N. Jacob Beaumont Sur. ..... T.D. 5,997 ft.; 50 ft. cmt. plug from 3,050-3,100 ft.

LIVINGSTON—POLK COUNTY

Gem Oil Co.'s No. 1 Shrove, 466 ft. from W line and 404 ft. from N line of lease ..... Rigging up.
Gist Oil Co.'s No. 1 Kingsbury County Holding Corp., A. Viesca Sur., 150 ft. N at R/A and 193 ft. E along S line of tract ..... T.D. 4,242 ft.; making 1 bbl. distillate hour, ¼-in. choke. T.P. 1,550 lbs.; 2,500,000 ft. gas; rigging up separator.

H. B. Owenby's No. 1 Kimes, 330 ft. from N line and 330 ft. from E line of 25-acre lease in A. Viesca Sur. ..... Pits.
H. B. Owenby's No. 1 O. L. Munson, 330 ft. from N line and 330 ft. W of E line of lease in A. Viesca Sur. ... Show oil 4,333 ft.; set csg.
Smith & McDaniel's No. 1 W. B. Munson heirs, 420 ft. from NW line and 296 ft. NE from road in A. Viesca Sur. ..... T.D. 4,337 ft.; comp. 22 bbls. hour through ½-in. choke.

J. L. Werby's No. 1 L. G. Howard, 466 ft. from SE line and 466 ft. from SW line of 70-acre tract, A. Viesca Sur. ..... Drlg. shale 150 ft.

GRETA—REFUGIO COUNTY

Bianco Oil Co.'s No. 2-C J. J. O'Brien, N. S. Crunk Sur., 466 ft. from E line and 510 ft. from S line of 50-acre tract ..... T.D. 4,397 ft.; 7-in. csg. at 4,372 ft.; W.O.C.

D. & D. Oil Co.'s No. 1 Fannie Heard, 330 ft. from N and E lines of Lot No. 14 ..... 4-min. D.S. test 2,427-70 ft.; tested gas and salt water; coring 3,800 ft.

Dash & Bianco's No. 1 J. M. O'Brien, Winfield Sur., 466 ft. from S and E lines of 300-acre tract ..... T.D. 4,396 ft.; 7-in. csg at 4,386 ft.; W.O.C.

Floboots Oil Corp.'s No. 1 M. C. Bauer, 330 ft. N line, 1,724 ft. from W line, J. M. Ximines Sur. ..... Coring 6,432 ft.
Floboots Oil Corp.'s No. 2-A J. F. Heard, Ximines Sur., 466 ft. from N line and 1,374 ft. from W line of 150-acre tract, 808 ft. E of No. 1 ..... Coring 4,433 ft.

Fioboots' No. 3-C J. M. O'Brien, 466 ft. from S and W lines of Blk. 10, Smith Subd., E. H. Winfield Sur. ..T.D. 1,289 ft.; W.O.C.

Fioboots Oil Co.'s No. 4-C J. M. O'Brien, 503 ft. from E line and 466 ft. from S line of Blk. 8, Peoples Sur...Derrick.

Hewitt & Doughtery's No. 3 Lambert, E. W. Harper Sur...Drlg. 260 ft.

Humble O. & R. Co.'s No. 2 Fannie Heard, 466 ft. S of most southerly N line and 303 ft. E of most westerly line in Crunk Sur. .....Oil sand 5,459 ft.; W.O.C.

Humble O. & R. Co.'s No. 3 Fannie Heard, 825 ft. E of most northerly NW cor. of lease and 466 ft. S of most northerly line at R/A. N. S. Crunk Sur. ..Drlg. shale 3,592 ft.

Humble O. & R. Co.'s No. 3 J. F. B. Heard, Peoples Sur., 466 ft. from W line and 923 ft. N of No. 1 .....T.D. 4,384 ft.; comp. 995 bbls. through ⅝-in. choke.

Humble O. & R. Co.'s No. 4 J. F. B. Heard, 466 ft. from W line of 500-acre lease and 133 ft. NW of R.R. at right angles, or 2,750 ft. from W line and 3,710 ft. from S line of Peoples Sur. .....Rigging up.

Humble O. & R. Co.'s No. 4-C O'Brien, 697 ft. from N and 1,169 ft. from E lines of 100-acre tract, or 840 ft. E of No. 3-C in Ximines Sur. .....Drlg. shale 1,579 ft.

Humble O. & R. Co.'s No. 2 Welder, 1,322 ft. from E line and 466 ft. from S line of 752-acre tract in the Winfield Sur. .....Drlg. shale 3,616 ft.

Nesral Oil Co.'s No. 1 V. E. Heard, 466 ft. N line, 266 ft. W line, M. J. Ximines Sur. .....T.D. 6,015 ft.; shale; cored oil sand 6,003-13 ft.; 4½-in. csg. at 6,002 ft.; swabbing water.

Stanolind Oil & Gas Co.'s No. 3-A J. M. O'Brien, Peoples Sur., begin at NE cor. of "A" lease, thence W along N line 1,509 ft., thence S at right angles 466 ft., S offset to No. 4-B .....S.D. 4,384 ft.

Stanolind Oil & Gas Co.'s No. 5-B J. M. O'Brien, S offset to No. 1 Welder .....T.D. 1,325 ft.; S.D.

Stanolind & Atlantic's No. 2-G J. M. O'Brien, 933 ft. N of No. 1, 315 ft. from E line of 400-acre tract in Winfield Sur. .....Rigging up.

Stanolind Oil & Gas Co.'s No. 3 O'Connor, 1,620 ft. from S line and 466 ft. from W line of 100-acre lease in Crunk Sur. .....Location.

Stanolind Oil & Gas Co.'s No. 4 O'Connor, 466 ft. from W and S lines of 100-acre lease in Crunk Sur. .....Location.

Texas Co.'s No. 1 James Welder, 2,700 ft. E and 466 ft. N of NW cor. of Continental's 200-acre Welder lease, John T. McGrew Sur. (N of Greta Pool) .....Rigging up.

United Prod. Co.'s No. 15 Fox, 830 ft. W of No. 2-A in Wm. Hews and L. Brown Sur. .....Drlg. sandy shale 630 ft.

United Prod. Co.'s No. 13 Fox, 933 ft. S of No. 12 and 466 ft. from E line of lease in Hews Sur. .....Drlg. shale and lime 2,762 ft.

United Prod. Co.'s No. 14 W. J. Fox et al, 466 ft. from N line and 1,060 ft. W of No. 11 on 848-acre tract in Wm. Hews and L. Brown Sur. .....Derrick.

United Production Co.'s No. 7 Lambert, center of N½ of Blk. 4, M. F. Lambert League .....T.D. 4,390 ft.; W.O.C.

CLAY CREEK—WASHINGTON COUNTY

Sun Oil Co.'s No. 3 Schermer, N. Clay Sur., 330 ft. NW, 330 ft. SW line of lease .....Drlg. hard sand 3,364 ft.

Sun Oil Co.'s No. 4 Schlettman .....Cmtd. surface csg. 139 ft.

SOUTH LOUISIANA FIELDS

BLACK BAYOU—CAMERON PARISH

Shell Pet. Corp.'s No. 18 Watkins, 2,515 ft. S. 650 ft. W of NE cor. Sec. 18-12s-12w .....Preparing to survey hole; T.D. 4,187 ft.

CAMERON MEADOWS—CAMERON PARISH

Humble O. & R. Co.'s No. 6 Cameron Meadows, 1,866 ft. W and 150 ft. N of SE cor. of Sec. 16-14s-13w ...T.D. 3,635 ft.; cutting and pulling screen; W.O.C.

Humble O. & R. Co.'s No. 7 Cameron Meadows, 2,495 ft. W and 155 ft. S of NE cor. Sec. 16-14s-13w.....Shale 865 ft.; W.O.C.

Humble O. & R. Co.'s No. 1-B Cameron Meadows, 250 ft. W and 2,640 ft. S of NE cor. of Sec. 24-14s-14w...Bldg. foundation.

EDGERLY—CALCASIEU PARISH

Rex. Pet. Co.'s No. 13 Hunter, 465 ft. N, 90 ft. E of SW cor. of SE ¼ .....T.D. 4,050 ft.; preparing to bail.

Union Sulphur Co.'s No. 1 Hunter, 210 ft. E, 1,260 ft. N of SW cor. SE Sec. 21-9s-11w .....S.D. 5,502 ft.

Union Sulphur Co.'s No. 1 La Prairie Narrone, 1,061 ft. N, 250 ft. W of SW cor. SW Sec. 21-9s-11w .....Drlg. shale 4,358 ft.

CHOCTAW—IBERVILLE PARISH

Standard Oil Co. of La.'s No. 4 Gay, 2,350 ft. S, 175 ft. E of NE cor. Sec. 52-9s-11e .....Drlg. shale 2,747 ft.

GUEYDAN—VERMILLION PARISH

Pure Oil Co.'s No. 6 Alliance Trust, 667 ft. E, 1,787 ft. S line of lease, Sec. 34-11s-1w .....Reaming 5,575 ft.

HACKBERRY—CAMERON PARISH

Gulf Ref. Co.'s No. 13-A Irwin .....Hard sand 6,738 ft.

Pep Oil Co.'s No. 1 Yount Lee, 3,996 ft. W, 100 ft. N of SE cor. Sec. 19-12s-10w .....Comp. 200-bbl. pumper, low gravity; T.D. 4,182 ft.

Red Kelly Oil Co.'s No. 1 Duhon, 200 ft. S, 500 ft. E, NW cor. Sec. 27-12s-10w .....T.D. 3,361 ft.; drlg. plug.

Texas Co.'s No. 10-B State, 1,000 ft. E, 200 ft. N of NE cor. Sec. 13-12s-10w .....T.D. 7,272 ft.; setting whipstock to sidetrack; couldn't pull screen.

Union Sulphur Co.'s No. 1 Barbee est., 1,720 ft. N line, 330 ft. E of SW cor. Sec. 12-12s-10w .....Drlg. shale 7,976 ft.

Union Sulphur Co.'s No. 7 Humble lease, 1,010 ft. N, 661 ft. E of SW cor. Sec. 12-12s-10w .....Setting 4½-in. csg. in oil sand at 6,141 ft.

Yount Lee Oil Co.'s No. 11 Gulf Land, Sec. 14-12s-10w ..Drlg. broken hard sand and lime 5,078 ft.

Yount Lee Oil Co.'s No. 14 Gulf Land .....Drlg. sand and boulders 2,363 ft.

IOWA—CALCASIEU AND JEFF DAVIS PARISHES

Barnsdall Oil Co.'s No. 1 Caffal, 330 ft. N and E of SW cor. of lease .....Digging pits.

Barnsdall Oil Co.'s No. 4 Fontenot, 330 ft. N, 330 ft. W out of SE cor. 80-ac. lease, Sec. 7-9s-6w .....50 bbls. 1 hr., 23/64-in. choke; est. good for 1,500 bbls. day; T.D. 6,941 ft.

Magnolia Pet. Co.'s No. 2 James Bowman, 660 ft. W, 330 ft. N of SE cor. NE SW Sec. 12-9s-7w .....Brittle shale 7,041 ft.

Magnolia Pet. Co.'s No. 6 Wait .....Rigging up.

Magnolia Pet. Co.'s No. 7 Wait .....Shut down.

Shell Pet. Corp.'s No. 6 Fontenot, Sec. 7-9s-6w, 990 ft. N, 330 ft. W of SE cor. of lease .....T.D. 6,939 ft.; 26-ft. pay; to set screen.

Shell Pet. Corp.'s No. 7 A. D. Fontenot, 990 ft. N and 330 ft. W of SE cor. of lease in Sec. 7-9s-6w .....Drlg. lime and pyrite 6,578 ft.

Shell Pet. Corp.'s No. 7 Heyd, 660 ft. out of NW cor. of lease, Sec. 13-9s-7w .....Drlg. hard sandy lime 3,408 ft.

Shell Pet. Corp.'s No. 8 Heyd .....Waiting on rig.

Shell Pet. Corp.'s No. 1 Johnson .....Rig up and started drilling.

Shell Pet. Corp.'s No. 3 E. O. Stafford, 330 ft. from N and E lines of W½ NW Sec. 18-9s-6w .....Recovered all 4-in. stuck drill pipe; T.D. 6,513 ft.

Shell Pet. Corp.'s No. 1 Tuter .....Hard sand and boulders; T.D. 1,200 ft.

JENNINGS—ACADIA PARISH

Yount Lee Oil Co.'s No. 13 Houssiere-Latrielle, Sec. 47-9s-2w, 300 ft. E of No. 12 .....Drlg. shale 7,180 ft.

LAKE BARRE—TERREBONNE PARISH

Texas Co.'s No. 10 L.L.&E., 4,543 ft. S, 503 ft. W of NW cor. Sec. 30-21s-20 .....Drlg. hard lime 3,672 ft.

Texas Co.'s No. 20 State-Lake Barre, Sec. 30-21s-20e ....Drlg. shale 3,461 ft.

LEESVILLE—LAFOURCHE PARISH

Robt. Boles' No. 1 Crosby .....Comp. 32 bbls. through ¼-in. choke; T.D. 3,687 ft.

Emerald Pet. Corp.'s No. 1 State Bayou LaFourche, 990 ft. N and 430 ft. E of SW cor. of Sec. 26-21s-22e ....Sand 3,636 ft.; W.O.C.

Lincoln Oil Co.'s No. 2 State, 2,890 ft. N of S line of Sec. 26, in Bayou LaFourche, 15 ft. W of E bank, Sec. 26-21s-22e .....S.D. 640 ft.

T. & L. Prod. Co.'s No. 1 Donaree Nicol, 2,306 ft. N and 1,106 ft. E of SW cor. of Sec. 26-21s-22e .....Drlg. shale 2,825 ft.

Texas Co.'s No. 11 L.L.&E., 2,921 ft. S, 1,560 ft. W of NE cor. Sec. 27-21s-22e .....Sidetracking rock 4,164 ft.

Texas Co.'s No. 13 L.L.&E. .....Drlg. shale 3,596 ft.

LOCKPORT—CALCASIEU PARISH

Magnolia Pet. Co.'s No. 7 Farquaher, 330 ft. S, 174 ft. W of NE cor. SW NE Sec. 8-10s-9w .....Drlg. sand and shale 3,901 ft.

Magnolia Pet. Co.'s No. 11 Bordages, 660 ft. N, 490 ft. W of SE cor. NE NE Sec. 8-10s-9w .....Drlg. shale and streaky sand 7,401 ft.

Magnolia Pet. Co.'s No. 19 Miller, Sec. 9-10s-9w .....Swabbing sand 4,428 ft.

Union Sulphur Co.'s No. 1 Farquaher, 200 ft. S and W lines, NE cor. SW SE Sec. 36-12s-10w, 2-ac. tract ..Tested salt water; S.D.; T.D. 7,468 ft.

Union Sulphur Co.'s No. 2 Moss (W.O.), 850 ft. S, 210 ft. W of NE cor. NW SE .....Sidetracked, sandy shale, 6,640 ft.

PORT BARRE—ST. LANDRY PARISH

Gulf Ref. Co.'s No. 5 Wilson-Cockran, 600 ft. N, 910 ft. E of No. 2, Sec. 4-6s-5e .....S.D. 3,418 ft.

Texas Co.'s No. 17 Botney Bay, 1,800 ft. S 8 deg. W, 600 ft. N 82 deg. west southern NE 560 deg. tract, Sec. 4-6s-5e .....Derrick.

Texas Co.'s No. 20 Botney Bay .....Drlg. shale 3,439 ft.

STARKS—CALCASIEU PARISH

Gulf Ref. Co.'s No. 34 Lutcher-Moore, 1,313 ft. N, 400 ft. E of SW cor. Sec. 19-9s-12w .....S.D. 3,614 ft.

Union Sulphur Co.'s No. 5 Industrial Lbr. Co., 300 ft. S of No. 4, Sec. 30-9s-12w .....T.D. 1,132 ft.; set surface csg.

SULPHUR—CALCASIEU PARISH

Union Sulphur Co.'s No. 787 fee, 119 ft. N, 1,632 ft. W of C Sec. 29-9s-10w .....T.D. 4,983 ft.; to deepen; waiting on cutting tool.

Union Sulphur Co.'s No. 788 fee, 602 ft. S, 1,209 ft. W of C Sec. 29-9s-10w .....Drlg. shale 6,012 ft.

Union Sulphur Co.'s No. 790 fee, 929 ft. S and 502 ft. W of center of Sec. 29-9s-10w .....T.D. 5,567 ft.; tested salt water to deepen.

Union Sulphur Co.'s No. 791 fee, 529 ft. N, 907 ft. E of SW cor. Sec. 33-10s-12w .....S.D. 4,722 ft.

Union Sulphur Co.'s No. 1 Noble, 1,745 ft. S, 150 ft. W of NE cor. Sec. 30-9s-10w .....Drlg. sandy shale 5,018 ft.

Union Sulphur Co.'s No. 1 Bernard Ulrich, 75 ft. out of SW cor. Sec. 19-9s-10w .....Drlg. sandy shale 4,777 ft.

SWEET LAKE—CAMERON PARISH

Pure Oil Co.'s No. 12 Yount Lee fee, 800 ft. S of No. 11, in line with Nos. 9 and 10, Sec. 12-13-3w .....T.D. 5,908 ft.; installing blowout preventer.

WHITE CASTLE—IBERVILLE PARISH

Shell Pet. Corp.'s No. 8 Wilbert, 717 ft. N 60 deg. 30 min. E from SE of Lot 2 of Fractional Sec. 9, in Sec. 1-11s-12e .....P.B. 4,446 ft.; swabbing.

VINTON—CALCASIEU PARISH

Gulf Prod. Co.'s No. 9 Gardner, 572 ft. E and 159 ft. N of SW cor SW half SE Sec. 33-10s-12w .....T.D. 3,211 ft.; comp. 150 bbls. daily.

Gulf Ref. Co.'s No. 72-Gardner-Noble-Gray, 642 ft. E, 50 ft. S of NW cor. NE SE Sec. 33-10s-12w .....Sand 7,171 ft.

McLean's No. 16 Gray .....T.D. 1,977 ft.; pumping 15 bbls. daily; comp.

Tri-Oil Co.'s No. 1 Matilda Gray, 38 ft. W, 35 ft. N, of SE cor. NE SW NE Sec. 33-9s-12w .....Drlg. lime 2,921 ft.

Wilson Broach Co.'s No. 13 Wilson strip, 50 ft. N and 907 ft. E of SW cor. of Sec. 33-10s-12w .....T.D. 3,510 ft., hard lime.

Union Sulphur Co.'s No. 1 Vincent .....Drlg. 6,548 ft. in heaving shale.

Vinton Pet. Co.'s No. 3 Gordon, Sec. 34-10s-12w, 209 ft. from S line, 50 ft. from W line of 2-ac. tract ..Drlg. shale 3,288 ft; W.O.C.

MISCELLANEOUS WILDCATS

TEXAS

AUSTIN COUNTY

Humble O. & R. Co.'s No. 1 Chelsey, 418 ft. from NW and 150 ft. from S line of 26-ac. tract in W. C. White Sur. .....Drlg. shale 3,222 ft.

Merrie Bros., Perrini, Turnbull & Irwin's No. 1 Headge..Spudding.

R. R. Mitchell's No. 1 H. Schleider, J. F. Fitzgibbons Sur., 300 ft. out NE cor. 98-ac. tract .....T.D. 105 ft.; S.D.

Tibbets et al's No. 1 Heidman, 4,320 ft. W along N line from NE cor. of A. Larison Sur. in J. Cooper Sur., 410 ft. at right angles north .....T.D. 2,647 ft.; moving in new boiler.

BRAZORIA COUNTY

Danciger O. & R. Co.'s No. 3-A Hunt, 2,100 ft. from E, 2,000 ft. from S lines of Hunt's 1,000-ac. tract in W. C. Carson Sur. .....Drlg. 3,750 ft.

Danciger Oil & Ref. Co.'s No. 1-B Hunt, 1,400 ft. from NW line and 1,750 ft. from NE line of 1,600-acre tract in W. C. Carson Sur. .....Drlg. 3,400 ft.

Danciger Oil & Ref. Co.'s No. 1 Stark-Brown, 330 ft. out of most easterly NE cor. of lease in Perry & Austin Sur. .....Drlg. 1,925 ft.

Harrison & Abercrombie's No. 1 M. D. Howe, 993 ft. W line, 330 ft. N line, Blk. 18, Thomas Spraggins Sur. .....T.D. 7,003 ft.; abnd. and dry.

Shell Pet. Corp.'s No. 2 Haury (Danbury), H.T.&B. R.R. Sur., 720 ft. SE of No. 1 Blakely-Winston .....T.D. 6,067 ft., salt; P.B. to 3,950 ft.; coring sandy shale and streaks lime 4,611 ft.

BRAZOS COUNTY

H. Elliott et al's No. 1 W. F. Odom, near center of 379-ac. tract in SW cor. of Isaac Curll Sur. .....Cmtd. surface csg. 30 ft.

Liner et al's No. 1 Peters, 300 ft. SE line, 300 ft. SW line of E. V. Peter fee, G. Powell Sur. .....Derrick.

F. H. Scott's No. 1 Klintworth, I. Curd Sur., 300 ft. from N line, 400 ft. from E line .....Gas sand 1,393-1,420 ft.; S.D., orders; T.D. 1,512 ft.

D. W. Young, Jr.'s (H. L. Bleam) No. 1 Harrison, 300 ft. from S and W lines of lease in J. D. Allcorne Sur. .....Moving in.

BURLESON COUNTY

Mid-Tex Oil Co.'s No. 2 Young, 700 ft. S of No. 1 in J. Bird Sur. .....Shale 1,015 ft.; S.D.

CHAMBERS COUNTY

John H. Carrecker's No. 1 B. Weaver, 404 ft. out of SE cor. of lease in A. Weaver Sur. .....Drlg. sand 1,806 ft.

J. E. Jones' No. 1 Canada-Smith Ranch, 356 ft. W and 330 ft. N of NE cor. of W. F. Gau 544-acre tract in J. S. Roberts Sur. .....Set 10¾-in. csg. at 1,370 ft.; drlg. shale 5,090 ft.

Miramar Oil Co.'s No. 1 Geo. Stengler, V. Barrow Sur., 3,200 ft. from E line and center of N and S lines of lease .....Derrick and digging pits.

FORT BEND COUNTY

Edwards Drlg. Co.'s No. 1 H. Hausler, 780 ft. S of NE cor. of 103-acre tract, 510 ft. W of E line, Wickson Sur. .....Shale and boulders 1,270 ft.

O'Connor Dome Oil Co.'s (was A. N. Phillips et al's) No. 1 Grigar, 2,150 varas E line, 1,550 varas N line, J. S. O'Connor Sur. .....40 ft. of sand; T.S. 4,123 ft.; show water; S.D. 5,185 ft.

Phillips Pet. Co.'s No. 1 A. B. Holmes, 600 ft. from E and 300 ft. from S lines of 200-ac. tract in Samuel Isaac Sur. .....Drlg. shale; prob. Vixburg, 6,022 ft.

Porter & Blanchard's No. 2 Wheat .....Odor oil 2,528-83 ft.; T.S. 2,928 ft.; T.D. 2,967 ft.; set screen; making salt water and gas; waiting orders.

Quintana et al's No. 2 Wood, O'Connell & Mellon, 304 ft. from S line and 5,360 ft. from E line of lease ..Shale 6,377 ft.; dry and abnd.

GRIMES COUNTY

Clark & Dodd's No. 1 Murry, 150 ft. W line, 300 ft. S line, Anderson Sur. ..... Gumbo 1,305 ft.

Cambrian Oil Co.'s No. 1 W. V. Sangster, John Moore Sur., 300 ft. out of most westerly NW cor. of 218-ac. tract ..... Derrick.

Foster et al's No. 1 Quinn, 7,100 ft. from W line, 3,900 ft. from N line of S. F. Austin Sur. ..... T.D. 3,825 ft.; P.B. 3,200 ft.; dry and abnd.

H. C. Ratcliff's No. 1 Fulgham, A. Tuttle Sur., 600 ft. N line, 540 ft. W line of lease ..... Derrick.

HARDIN COUNTY

Greer & Frazier's No. 1 O. Sternberg, 660 ft. out of SW cor. of E 384 acres in H.&T.B. Sur. No. 283 ..... Rigging up.

Resource Oil Corp.'s No. 1 Sternberg Oil Co., C. of G. Dorsey No. 3 Sur., Abst. 193 ..... Derrick.

HARRIS COUNTY

Glenn H. McCarthy's No. 2 Preston on 80 ac. in Sec. 2, Blk. 9, 4 miles W of LaPorte ..... Location.

Golding & Murchison's No. 1 Clappert, W.C.R.R. Sur., Blk. 4, Sec. 9, 1,350 ft. from E line, 330 ft. from N line ..... D.S. test 19 min. through ¼-in. choke with seat at 6,275 ft. showed 8 thribbles mud, little gas; coring 6,420 ft.

J. A. Hodges' No. 1 Scott, 200 ft. S, 900 ft. W of intersection of Crosby Huffman, F. Rankin Sur. ..... T.D. 6,275 ft.; S.D.

C. L. McCarthy et al's No. 1 Preston, Wm. Jones Sur., 236 ft. E. 161 ft. S of NW cor., Blk. 9, W. A. Payne Subd. ..... S.D. 6,001 ft.; dry and abnd.

HOUSTON COUNTY

Murmac Oil Co.'s No. 1 G. L. Murray & Son, John Durst Sur. ..... T.D. 3,450 ft.; S.D.

JACKSON COUNTY

Atkins & O'Neil's No. 1 Ward (Davis), C Lot 93, I.&G.N. Sur. No. 18, Blk. 8 ..... Drlg. 5,050 ft.

Enclo Gas Co.'s No. 1 Toney, 150 ft. out of NW cor. of Toney's 1,064-ac. tract in Raymor Musquiz Sur. ..Drlg. 4,300 ft.; show gas 2,570-2,600 ft. and 3,000-30 ft. and 3,940-50 ft.

JASPER COUNTY

Louis Franklin's No. 1 Cartwright, 360 varas E line and 740 varas S line of Lot 19, Edward Legrande Sur. ... Derrick.

JEFFERSON COUNTY

Lucky Strike Oil Co.'s No. 1 Walker, D. Easley Sur., 2,100 ft. N, 1,400 ft. E of NW cor. of Lot No. 13 ... S.D. 1,708 ft., shale and lime.

Sun Oil Co.'s No. 1 H. Long, 1,500 ft. N line, 990 ft. E line of lease ..... Drlg. hard sand and rock 6,234 ft.

LIBERTY COUNTY

Extension Oil Co.'s No. 1 J. A. Lovett, 200 ft. from E and 600 ft. from S line of lease, T. P. Deevers Sur... T.D. 1,565 ft., shale and sand; S.D.

Gulf Prod. Co.'s No. 2 Kirby, John Pleasants Sur., 1,866 ft. S of No. 1 ..... Odor oil 7,198 ft. and 7,175 ft.; coring shale 7,694 ft.

Gulf Prod. Co.'s No. 4-C Kirby, 7,100 ft. S and 1,383 ft. E of NW cor. of John Pleasant Sur. ..... Rigging up.

Liberty & Independent Oil Co.'s No. 1 J. M. Neal, 3,550 varas from E line and 500 varas from N line of Samuel Strong Sur. ..... Derrick.

Miramar Oil Corp.'s No. 1 Crowe & Jacobs, H.&T.C. Sur. 21, 950 ft. W of E line, 110 ft. N of S line of 300-ac. tract ..... T.D. 4,563 ft.; swabg. 200 bbls. of P.L. oil daily through 5/16-in. choke; grav. 26, corrected; drlg. 4,778 ft.; shale went dead.

H. Sample's No. 1 Security Trust Co., 466 ft. from S and E lines of N 600 ac. of Lot 3 of H. Sample Subd. of J. Faulk Sur. ..... Location; clearing titles.

Seale's No. 1 Finley, 700 ft. E and 400 ft. N of SW cor. of 60-acre tract, A. B. Hardin Sur. ..... Derrick.

Thomas et al's No. 1-A Eicke, 660 ft. from W line and 2,350 ft. from S line of tract in Green Sur. ..... T.D. 5,163 ft.; preparing to set csg.

Turnbull & Irwin et al's No. 1 N. Hildebrandt, W. Whitlock Sur., C of E ½ of survey ..... Set surface csg. 566 ft.; W.O.C.

MADISON COUNTY

Paul Edwards et al's No. 1 L. M. Peters, Mahala Wilkinson Sur., 400 ft. from N line and 300 ft. from W line of 132-acre tract ..... T.D. 508 ft.; W.O.C.

Foster et al's No. 1 Poteet, J. H. Hunter Sur., 350 ft. S and 150 ft. E of most westerly NW cor. of 285-acre tract ..... S.D. 2,280 ft.

MATAGORDA COUNTY

Oils Consolidated's No. 2 Hawkins, 200 ft. due NE of No. 1 well ..... Cmtd. 9⅝-in. csg. at 5,358 ft.; T.D. 5,516 ft.; lubricating to break loose stuck drill pipe.

Skelly Oil Co.'s No. 1 Cobb, M. Cummins Sur., 434 ft. from E, 1,506 ft. S of F. G. Cobb's 167-ac. tract .... T.D. 7,186 ft.; P.B. to 7,076 ft.; 120 bbls. distillate per day through ⅝-in. choke, 7,800,000 ft. gas; equalized pressure 2,575 lbs.; 57 grav. brown distillate; shut in.

United North & South Dev. Co.'s No. 1 Unit 4, Buckeye farm, J. C. Keller league, 214 ft. N line and 202 ft. E line of lease ..... Drlg. shale 6,020 ft.

United North & South Dev. Co.'s No. 1 Unit 6 (No. 2 Stoddard), 25 ft. each way out of NW cor. of Lot 19, Buckeye townsite ..... T.D. 9,257 ft.; sidetracked at 6,750 ft.; coring lime and shale 8,368 ft.

United North & South Dev. Co.'s No. 1 Unit No. 58, 250 ft. N and 200 ft. W of SE cor. of Unit No. 58 ..... Derrick.

MONTGOMERY COUNTY

Baker et al's No. 1 Benker, D. James Sur. ..... Old T.D. 4,921 ft.; P.B. to 4,909 ft.; T.D. 4,647 ft.; D.S. test 4,629-47 ft., 3 min., ¼-in. choke on top and bottom; small amount gas; no pressure; lost seat; S.D.

Cooper & Smith's No. 1 Post, Daniel Roper Sur. ..... Cored lignite and sandy shale 2,822-27 ft.; S.D.

Deering & Frazier's No. 1 Hicks, 660 ft. S and W of NE cor. 565-acre tract, T. Taylor Sur. ..... Bldg. road.

Hamill & Smith's No. 1 Foster Lbr. Co., Pryor Bryan Sur., 7,147 ft. from W line and 3,760 ft. from N line of lease ..... Shale 6,310 ft.

Steen Drlg. Co.'s No. 1 Long Bell Lbr. Co., 440 ft. S and E from NW cor. of Wilson Barker Sur. ..... Top Cockfield 5,815 ft.; sand 5,867-69 ft., sand 5,873-77 ft.; D.S. test 5,855-77 ft. showed 350 lbs. pressure with 2 gals. dist. and 2 gals. mud in 4 min.; coring 5,981 ft.; D.S. test 5,873-84 ft., 575 lbs. pressure, 15 min., 1 joint brown dist., ¼-in. choke on top, ⅝-in. choke on bottom; D.S. test 6,016-53 ft.; showed 23 thribbles salt water, 11 min., 250 lbs.; S.D. circulating.

NACOGDOCHES COUNTY

James W. Rich's No. 1 Unknown, J. L. Ewing Sur., 2,777 ft. from W line, 5,296 ft. from S line of survey.. No report.

NEWTON COUNTY

Tide Water Oil Co.'s No. 1 Southwest Lbr. Co., 467 ft. S of most southerly N line and 1,664 ft. E of most westerly W line of 1,500-ac. tract in Henry Cochran Sur. ..... Cmtd. 10-in. csg. at 1,021 ft.

ORANGE COUNTY

Blue Line Oil Co.'s No. 1 Godwin, Richard Ballew Sur., 300 ft. from E line and 150 ft. from NE line of Godwin 20-acre tract ..... S.D. 900 ft.; bldg. road.

Texas Louisiana Oil Co.'s No. 1 Starks, 2,450 ft. N of NW cor. M. Delano Sur. 68, 10,500 ft. E at R/A .... T.D. 1,200 ft.; S.D.

POLK COUNTY

Alpha Pet. Co.'s No. 1 Kirby & West, Thomas Sur., 330 ft. out of SE cor. of 150-ac. lease ..... T.D. 4,907 ft.; top Cockfield 4,770 ft.; 60 bbls. salt water daily through ¼-in. choke; T.P. 950 lbs.; preparing to deepen.

REFUGIO COUNTY

C. B. Bunte's No. 1 Rook, 12,400 ft. from W and 11,500 ft. from N line of Antonio De Lavina Sur. ..... Derrick.

Cox et al's No. 1 F. W. Bissett, J. Crockett Sur. ..... Drlg. 3,002 ft.

Heard-Holland Oil Co.'s No. 1 Peck, 366 ft. N and W out of NW and SW of Bonnie View Subd. ..... Top Heterostegina 4,437 ft.; S.D. 4,500 ft.

Humble Oil & Ref. Co.'s No. 12 O'Connor, 930 ft. W of No. 11, J. Keating Sur. ..... T.D. 3,082 ft.; sand 3,070-82 ft.; comp. 25 bbls. daily.

Humble Oil & Ref. Co.'s No. 13 O'Connor, 933 ft. NE of No. 12 and 933 ft. NW of No. 11 on 5,545-acre tract in John Keating Sur. ..... Location.

G. Jeffries' No. 1 James F. Power, 759 ft. from N and 1,812 ft. from E lines of 500-acre lease in J. J. Garza and J. Vidaurri Sur. ..... S. D. 550 ft.

SAN AUGUSTINE COUNTY

Fidelity Exploration Co.'s No. 1 Bryan & Flourney, 1,926 ft. from N and 725 ft. from E lines of Sec. 14, S.P.R.R. Sur. ..... Drlg. 1,650 ft.

SAN JACINTO COUNTY

Darby Jones' No. 1 McBee ..... Sandy shale 2,695 ft.; S.D.

Piedmont Oil Co.'s No. 2 Foster, 330 ft. each way out of NE cor. Geo. Taylor Sur. ..... Building road.

Turnbull & Irwin's No. 1 Fitzgerald, Gowan Harris Sur., 2,300 ft. from E line and 1,320 ft. from N line of tract ..... T.D. 4,856 ft.; swabbed salt water; water sand 4,830-50 ft.; abnd.

VICTORIA COUNTY

Markle et al's No. 1 Dunlap, Manuel Zepeda Sur., 9,550 ft. along NW line of survey from most northerly NE cor. and 1,475 ft. SE at R/A ..... S.D. 1,818 ft.

Wm. Quick's No. 1 Tom Joshua, 330 ft. out of NW cor. of Blk. 21, F. G. Hidalgo Sur. ..... Rigging up.

Texas Co.'s No. 6-A McFaddin, A. J. Gray Sur., 5,600 ft. from NE line, 250 ft. from SE line ..... Sand 4,601 ft.; top sand 4,549 ft.; W.O.C.

Texas Co.'s No. 7-A McFaddin, 250 ft. due N of No. 7, A. J. Gray Sur. ..... T.D. 1,597 ft.; standing with 125 lbs. pressure.

Texas Co.'s No. 8 McFaddin, A. J. Gray Sur., 6,600 ft. N of S line, 1,383 ft. from E line of NE cor. ..... D.S. stuck 3,609 ft.; cut pipe to 2,798 ft.; P.B. to 1,825 ft.; sidetracked to 3,609 ft.; set 8⅝-in. csg. to 3,426 ft.; drlg. shale and sand 4,934 ft.

WHARTON COUNTY

Pure Oil Co.'s No. 1 W. Garrett, 4,456 ft. SE and 1,690 ft. NE of W cor. of Sec. 28 ..... To deepen; T.D. 6,343 ft.; rigging up.

Pure Oil Co.'s No. 2 Lancaster, 1,320 ft. NW of SE line and 1,476 ft. SW of NE line of tract in Sec. 23, Morris & Cummings Sur. ..... Location.

Pure Oil Co.'s No. 1 Stewart ..... T.D. 5,983 ft.; preparing to pull 5½-in. O.D. csg. cmtd. 5,311 ft.

Pure Oil Co.'s No. 2 Stewart, Morris & Cummings Sur., Sec. 25, 990 ft. out of SW cor. of 160 acres ..... Drlg. 6,475 ft., hard shale and lime shells.

Pure Oil Co.'s No. 1 Wallace Houston, 858 ft. SE of NW line, 1,690 ft. NE of SW line, Sec. 28 (T. W. Heard Sur.) ..... T.D. 6,457 ft.; shot 5-in. csg. at 5,554 ft.; T.D. 6,452 ft., shale and sandstone; last 6 in. good odor oil; setting csg.

SOUTH LOUISIANA

ACADIA PARISH

Rhodes Drlg. Co.'s No. 1 Latrell ..... Drlg. sand 1,962 ft.

Superior Oil Co.'s No. 1 P. O. Hermandes, 990 ft. W. 990 ft. S of NE cor. SE Sec. 34-8s-3e ..... Drlg. shale 8,787 ft.

Woodley Pet. Co.'s No. 1 Links Bros., 150 ft. S and E of NW cor. Sec. 36-7S-1e ..... Drlg. sandy shale 2,320 ft.

ASCENSION PARISH

Turnbull & Irwin's No. 1 Community (Darrow) ..... T.D. 4,631 ft.; 500 lbs. pressure; comp 50 bbls.

BEAUREGARD PARISH

Humble Oil & Ref. Co.'s No. 1 Long Bell, 200 ft. E of W line and 2,640 ft. S of N line of Sec. 11-5s-7w ... Drlg. shale 7,635 ft.

CALCASIEU PARISH

Fred Oil Co.'s No. 1 Faiszt, 566 ft. N, 300 ft. W of SE cor. of NW of SE Sec. 26-8s-10w ..... Shale 2,090 ft.

Union Sulphur Co.'s No. 1 Barbe, 2,681 ft. W, 2,647 ft. S of NE cor. Sec. 1-9s-8w ..... Drlg. hard shale 8,125 ft.

IBERIA PARISH

Y. D. Spell's No. 1 Bernard, 5,138 ft. SW cor. along western boundary line, then in NE direction 1,140 ft. along N line of Bernard land, 52 ft. S of well in Sec. 54-12s-7e ..... S.D. 2,850 ft.

JEFFERSON DAVIS PARISH

Humble O. & R. Co.'s No. 2 Devilbiss, 1,850 ft. S, 250 ft. W of NE cor. Sec. 14-9s-4w ..... Screen test 7,691-7,704 ft.; T.D. 7,705 ft.; swabbing 1,500 ft.; little oil.

Shell Pet. Corp.'s No. 1 Kratza, 660 ft. S, 330 ft. W of NE cor. NW Sec. 12-9s-4w ..... Brittle shale 8,004 ft.

LAFOURCHE PARISH

Southern Sulphur Corp.'s No. 1 D. L. Lagraize, 800 ft. E of NW cor. of Lot 7, thence 250 ft. S of Sec. 26-21s-22e ..... Spudded and S.D.

ST. BERNARD PARISH

Southern Sulphur Corp.'s No. 1 Lake Lery, 400 ft. W. 500 ft. N, SW cor. Sec. 28-13s-15e ..... Gumbo 2,867 ft.; no report.

ST. LANDRY PARISH

Bailey Gaunce's No. 1 Lewis, 200 ft. N and E of SW cor. of NW of NE of Section 29-5s-6e (workover) ... Drlg. shale 4,833 ft.

H. H. Hotchins Lbr. Co.'s No. 1 Whiteman Lbr. Co., 250 ft. out of SW cor. NE Sec. 15-5s-6e ..... S.D. rock 3,557 ft.

ST. MARTIN PARISH

Standard Oil Co. of Kansas' No. 1 E. B. Hopkins, Sec. 23-10s-6e ..... Drlg. sand 7,764 ft.

Texts Co.'s No. 6 St. Martin Land Co., 660 ft. S and 500 ft. W of NE cor. SE Sec. 17-8s-7 ..... Rigging up.

TERREBONNE PARISH

Texas Co.'s No. 1-B State-Bay Junop, 2,200 ft. N, 950 ft. E of SW cor. Sec. 37-21s-14e ..... Drlg. shale 6,621 ft.

Texas Co.'s No. 10 State-Caillou Island ..... Drlg. shale 5,344 ft.

Texas Co.'s No. 11 State-Caillou Island, 500 ft. SW from No. 9, Sec. 9-23s-20e ..... Drlg. sand 3,983 ft.

Texas Co.'s No. 7 State Bay-St. Elaine, 3,900 ft. N, 2,300 ft. E of SW cor. Sec. 8-22s-18e ..... Drlg. salt 2,964 ft.

VERNON PARISH

Robt. K. Williams, Jr.'s No. 1 Llano Del Rio, 1,185 ft. S, 1,000 ft. W of NE cor. Sec. 7-1n-9w ..... Preparing to spud.

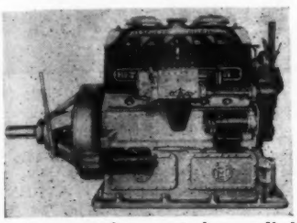
NEW AND IMPROVED EQUIPMENT

Hercules Offering Diesel Engine for Oil Field Use

The Hercules Motors Corp., Canton, Ohio, has developed a six-cylinder solid-injection, high-compression, full Diesel engine for automotive, general industrial and oil field and marine purposes, to be known as Model DHX. It has 5-inch bore and 6-inch stroke, and is constructed to operate at speeds up to 2,000 r.p.m.

Its design and construction follow the usual Hercules practice with particular attention being given to symmetry, compactness, and pleasing appearance, with accessibility, durability and reliability as requisites.

The underhung crankshaft is supported by the aluminum or cast iron crankcase which extends 4 inches below the crankshaft center, thus forming a deep tubular rib to give side stiffening to the case. The crankcase extends above the crankshaft sufficiently to give ample vertical stiffness to the case upon which is supported a one-piece cast iron cylinder block and two cylinder heads each covering three cylinders.



Through bolts from the main bearing caps pass through the crankcase, cylinder block and heads to clamp these members rigidly together and carry vertical stresses from the cylinder heads to the crankcase. The eccentric heads on these bolts, which are located in recessed holes in the top of the crankcase, prevent the bolts from turning when the main bearing nuts or the cylinder head nuts are drawn up. Because of the through bolt construction with the eccentric heads, any and all parts above the crankcase can be removed without disturbing the main bearing caps if occasion should ever require it.

The cylinder liners are of the wet sleeve type mounted in the cylinder block with copper gasket seal at the top and rubber rings at the bottom.

The timing gears are mounted on the end opposite the flywheel with a trunnion about the crankshaft projection for three-point mounting purposes. A silent chain drive at the front of the camshaft gear drives the fuel pump at half engine speed. The fuel pump is mounted on the right side of the engine below the exhaust manifold and the fuel delivery tubes lead from the pump to the nozzles, which are located on the left side of the engine and pass between the cylinder heads.

The fan is belt driven from a pulley on the extended water pump drive shaft and when an air compressor is required for brakes or other purposes, it is mounted on a bracket attached to the gear cover and belt driven from the same belt that drives the fan.

Main and connecting rod bearings are of removable steel shells lined with a high lead bronze alloy capable of carrying high pressures and temperatures. The connecting rod is of the H section design, drop-forged and rifle-drilled to carry oil to the piston pin which is of molybdenum steel, full floating and held in place by aluminum buttons in the piston. The piston is provided with four compression rings and two oil drain rings, one above and one below the piston pin.

Among the Equipment Houses

W. Scott Milne has been appointed production manager of the Chicago plant of the Ingersoll Steel & Disc Co. (division of the Borg Warner Corp., Chicago).

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Announcement has been made by the Ingersoll-Rand Co., 11 Broadway, New York, that it has acquired the turbo-blower business of the General Electric Co. and exclusive rights to General Electric patents in this field.

—

W. W. Timmis has been appointed manager in charge of sales of the copper pipe and fittings division of the American Radiator Co., according to an announcement from Arthur R. Herske, vice president and general manager of sales.

—

The Macwhyte Co., Kenosha, Wis., manufacturer of wire rope, has moved its Pittsburgh, Pa., office and warehouse to 704 Second Avenue.

—

The Norvell-Wilder Supply Co., Beaumont, Tex., has been made representative for the Hercules Motor Corp., Canton, Ohio, and a complete stock of Hercules engines and power units will be available through Norvell-Wilder stores in Beaumont, Houston and Willow Springs, and later at other points. The Hercules rebuilt engine exchange is available also through Norvell-Wilder.

The Hercules Powder Co., Wilmington, Del., has elected L. N. Bent vice president. Mr. Bent, formerly general manager of the naval stores department, also becomes a member of the company's executive committee.

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The new branch office of Ralph N. Brodie Co., Inc., recently opened in Los Angeles, was announced as located at Seventh Street and Gladys Avenue. The correct address is 1001 East Eighth Street.

—

H. D. James, control expert and long a consulting engineer of the Westinghouse Electric & Manufacturing Co., has opened an engineering consulting service in the Gulf Building, Pittsburgh, Pa.

—

General Wood's various manufacturing activities, which have been conducted for 22 years as the Wood Hydraulic Hoist & Body Co., will be known henceforth as Gar Wood Industries, Inc., according to Logan T. Wood, vice president and general manager.

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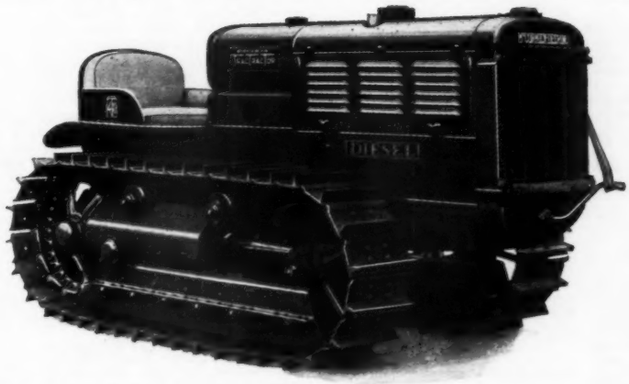
The Republic Supply Co. has opened a Fort Worth, Tex., office at 1204 Fair Building, with J. B. Lionberger in charge. Earl Copeland, formerly store manager for the company in Turnertown, East Texas, has been transferred to the Fort Worth office.

TracTracTor Now Operated With Diesel Engine Power



The McCormick-Deering Model TD-40 or Diesel-40 TracTracTor is operated by a four-cylinder, four-stroke-cycle, valve-in-head Diesel engine and is equipped with the same type of chassis as the McCormick-Deering six-cylinder T-40 TracTracTor. In these days, when operating costs must be watched closely, the fuel economy of working this TracTracTor with Diesel-engine power is apparent.

A distinctive system of starting makes it possible for the operator to crank the engine as easily as a gasoline engine of corresponding size. To do this a special device set by the operator but automatically disengaged is employed to reduce the compression pressure and place in operation a gasoline carburetor and magneto. In starting, then, the engine is operated as a conventional gasoline engine until this automatic device cuts out and shuts off the connection to the carburetor and the spark plugs and disengages the magneto, thus restoring full Diesel pressure. The engine then operates on the regular Diesel cycle.

The engine operates at compression pressures of approximately 550 to 575 pounds per square inch. The volumetric compression ratio is 17:1. Cylinders are vertical and of 4¾-inch bore and 6½-inch stroke. The engine operates at four controlled speeds of 1,100 r.p.m. and under, and since the transmission provides five speeds the tractor may move at 20 different forward speeds.

Fuel to each cylinder is filtered five times and passes through two sediment traps. Fuel-injection nozzle for each cylinder is of the closed, single-hole type. The maximum engine horsepower is 52, the maximum drawbar horsepower, 44.

The McCormick-Deering TD-40 TracTracTor is a ruggedly built crawler tractor and is especially suited for heavy maintenance work, bulldozing and various oil field jobs.

Men Well Known in the Equipment Field

GEORGE S. WHYTE

Members of the Wisconsin Manufacturers Association at their recent annual meeting, held in Milwaukee, re-elected to the organization's presidency George S. Whyte, president of the Macwhyte Co., maker of wire rope. This will be his third successive term as leader of the state industrialists' organization. Mr. Whyte has long been prominent in association activities and has served for years as an officer of the Rotary International.

Other officers elected at the meeting of the association were: D. E. Everst, vice president; S. G. Scanlaan, treasurer, and George Kull, secretary-manager.

Johns-Manville Announces Superex Insulation Block

Johns-Manville, 22 East Fortieth Street, New York, announces a new and improved Superex insulation block which will safely withstand temperatures up to 1,900° F.

This increase in temperature resistance has been effected by the use of a special calcined diatomaceous silica, the same basic material from which Johns-Manville Sil-O-Cel insulating products have been made for many years. Like the previous Superex, it is bonded with asbestos fiber.

Superex is particularly adapted to the insulation of high-temperature boiler furnaces, open-hearth and glass-tank regenerators, hot-blast stoves, ceramic and rotary cement kilns, and various types of high temperature metallurgical furnaces.

In addition to higher temperature resistance, this new Superex block also has a lower density and a greater insulating value.

TEXAS EDITION OF BULLETIN

The Bridgeport Machine Co., Wichita, Kans., has prepared a special 12-page edition of the Bridgeport Bulletin, designed especially for distribution in Texas, although the oil field equipment described in it is of interest in all petroleum areas.

Wildcat Operations in Louisiana-Arkansas

(Continued from Page 91)

RED RIVER PARISH

A. D. Mytiler's No. 1 La. Delta Pecan Co., 1,700 ft. N, 160 ft. E, SW cor. Sec. 27-13-11 ..... S.D. 650 ft.

SABINE PARISH

J. F. Anderson's No. 1 Burkett, 135 ft. N, 655 ft. E, SW cor. NW Sec. 10-9-13 ..... Sidetracking liner 1,921 ft.
J. W. Bettis et al's No. 1 Frost Lbr. Ind., 330 ft. S and W, NE cor. SW Sec. 15-9-13 ..... Rigging up.
R. B. Campbell et al's No. 1 Cook Land Co., 150 ft. N, 300 ft. W, SE cor. NW NW Sec. 35-10-12 ..... Coring 1,567 ft.
Cleary Brothers' No. 2 Harris, 100 ft. N and E, SW cor. Lot 21, Sec. 10-9-13 ..... Comp. pumping 30 bbls., 1,997 ft.
Florence Oil Co.'s No. 5 Crawford, Sec. 20-9-13 ..... Used acid 1,975 ft.
Helena O. & G. Co.'s No. 1 Jackson, 330 ft. S and W, NE cor. SE Sec. 10-9-13 ..... Set 10-in. 60 ft.; set 6-in. 1,760 ft.
L. D. Higgins et al's No. 1 Burkett, 330 ft. S, 270 ft. W, NE cor. Sec. 16-9-13 ..... W.O.S.R. 2,034 ft.
Lula M. Layton's No. 2 Henderson, 330 ft. S and W, NE cor. NW NW Sec. 29-9-13 ..... S.D. 1,100 ft.
Zan Lloyd's No. 1 Henderson, 330 ft. N and W, C Sec. 29-9-13 ..... W.O.S.R. 2,000 ft.
Miles & Strickland's No. 1 McGee, 17 ft. S, 26 ft. E, NW cor. Lot 18, Sec. 9-9-13 ..... S.D. for fuel 950 ft.
John W. Moffett's No. 1 Logan Oil Co., Sec. 3-9-13 ..... W.O.S.R. 1,985 ft.
Geo. L. Pace's No. 1 Heard, Sec. 10-9-13 ..... P.B. 2,018 ft.
Geo. L. Pace's No. 1 Logan, 430 ft. N, 330 ft. E, SW cor. Sec. 26-10-13 ..... Testing 1,938 ft.
Sabine Royalties Co.'s No. 3 Graham, 330 ft. S and W, NE cor. SW NW Sec. 20-9-13 ..... Using acid 2,001 ft.
L. L. Posey's No. 3 Burkett, 330 ft. S and E, NW cor. NE NW Sec. 16-9-13 ..... W.O.S.R. 1,984 ft.
W. R. Rowe et al's No. 1 Craig, 330 ft. S and E of center Sec. 32-9-13 ..... Set 10-in. 40 ft.
J. A. Stinson's No. 1 Whitney Corp., 330 ft. S and W, NE cor. Sec. 8-9-13 ..... Set 8-in. 1,527 ft.
Stumpff & McFall's No. 1 Paul estate, Sec. 10-9-13 ..... Using acid 1,976 ft.
Windsor Oil Co.'s No. 2 Barr, 330 ft. N and E, SW cor. NW Sec. 15-9-13 ..... Location.

RAPIDES PARISH

Ben Banner's No. 1 Bentley Lbr. Co., 2,640 ft. E, NW cor. Sec. 11-4n-5w ..... Set 10-in. 150 ft.
Evans & Collingsworth's No. 1 Hickman, 330 ft. S and E, NW cor. Sec. 40-4-1e ..... S.D. 2,130 ft.; (corrected).
J. C. Prine et al's No. 1 Baum, 600 ft. N and E, SW cor. NE SW Sec. 27-6n-2e ..... S.D. 2,610 ft.

UNION PARISH

Ward & Jones' No. 1 Miller, 330 ft. S and E, NW cor. SW SW Sec. 16-21-2e ..... S.D. 1,210 ft.

WEBSTER PARISH

I. G. Abney Oil Co.'s No. 1-B B. L. Slack, 330 ft. E, 660 ft. N, SW cor. SE Sec. 36-23-11 ..... Drlg. 1,965 ft.

Arkansas

ASHLEY COUNTY

K. R. March's No. 1 Williams, 660 ft. S and E, from C of Sec. 8-18-4w ..... Dry and abd. 3,287 ft.

HEMPSTEAD COUNTY

A. H. Bagnelle's No. 1 Trattner & Rhinehart, Sec. 2-13-26. S.D. 1,186 ft.

LAFAYETTE COUNTY

Douglas Lawn's No. 1 Camp, 330 ft. S and W, NE cor. SW SE Sec. 14-15-23 ..... Set 10-in. 52 ft.
George W. Harper's No. 2 Bodcaw, 150 ft. S, 550 ft. E NW cor. SW NW Sec. 16-15-23 ..... S.D. 1,216 ft.

MILLER COUNTY

Duluth-Ark. Oil Co.'s No. 2 Beck, 330 ft. S and E, NW cor. SE SW Sec. 34-15-26 ..... Arranging to pump with jack 2,807 ft.
Fitzwater et al's No. 1 Norson, SW cor. SE SW Sec. 20-15-27 ..... S.D. 3,177 ft.
King Oil Corp.'s No. 1 C. H. Schroder, 200 ft. N, 330 ft. E, SW cor. SW NE Sec. 24-14-28 ..... S.D. 1,502 ft.
C. E. Murdock's No. 1 Rose, Sec. 4-16-26 ..... P.B. 2,930 ft.
R. L. Young, Tr.'s No. 1 Patterson, SE cor. SE NE Sec. 5-19-28 ..... S.D. 3,580 ft.

OUACHITA COUNTY

T. P. Lester's No. 1 Poindexter Est., 210 ft. N, 500 ft. W, SE cor. SW NW Sec. 35-15-18 ..... Dry and abd. 3,007 ft.
L. L. McDonald's No. 1 J. A. Robertson, 200 ft. S and E, NW cor. NE NW Sec. 25-15-16 ..... W.O.S.R. 2,092 ft.

UNION COUNTY

E. R. Henderson's No. 2 J. H. Ogden, 330 ft. S and E, NW cor. SW SE Sec. 32-18-14 ..... W.O.S.R. 2,208 ft.
E. R. Henderson's No. 1 Vines, 330 ft. N and W, SE cor. SW SE Sec. 29-18-14 ..... P.B. to 2,161 ft.
Mrs. R. K. Jones et al's No. 1 J. Davis, 330 ft. N and W, SE cor. NW NW Sec. 28-16-14 ..... Set 10-in. 120 ft.
Marine Oil Co.'s No. 2 Simmons, 150 ft. W, 200 ft. N, SE cor. NE NW Sec. 10-18-13 ..... Set 7-in. 3,518 ft.
Tubal Pet. Co.'s No. 1 Gaddy, 340 ft. N and E, SW cor. SE NW Sec. 14-17-14 ..... S.D.; W.O. 3,416 ft.

Mississippi

GREENE COUNTY

United Gas Public Service Co.'s No. 1 Davis, C NW Sec. 30-1n-5w ..... Drlg. 4,980 ft.

SIMPSON COUNTY

Beavy Corp.'s No. 1 R. J. Beavy, C SW Sec. 24-2n-4e... S.D. for 6⅝-in. 2,325 ft.

WALTHALL COUNTY

Mutual O. & Gas Co.'s No. 1 Boyd, Sec. 24-2n-9e, SW cor. SW SE ..... Moving in rig.

WARREN COUNTY

Orbet Drlg. Co.'s No. 1 R. L. Parker, 300 ft. E CWL, Sec. 14-14-1e ..... Set 6⅝-in. 3,130 ft.

Louisiana-Arkansas Proven Areas

North Louisiana

CADDO—RODESSA

Company, well, farm name, section and block—	Remarks:
R. W. Norton's No. 1-B J. B. French, 660 ft. S and E, NW cor., Sec. 34-23-16	Milling out 4½-in. 6,717 ft.
United Gas Pub. Ser. Co.'s No. 1 Deer, 1,320 ft. N and W, SE cor. Sec. 28-23-16	Location.

CADDO—HOSSTON

Shore Line Oil Corp.'s No. 1 Skelly, 3,770 ft. N, 1,873 ft. W, SE cor. Sec. 13-21-16	Comp. pumping 10 bbls., 1,057 ft.
Ark.-La. P. L. Co.'s No. 6 Rea & Green, 2,340 ft. S, 1,400 ft. W, NE cor. Sec. 19-18-4e	P.B. 2,170 ft.; set 6-in.

RICHLAND PARISH

United Carbon Co.'s No. 1 Wolf, 1,980 ft. N, 660 ft. W, SE cor. Sec. 35-17-6e	Comp. 41,500,000 ft. gas 2,399 ft.

SABINE PARISH—ZWOLLE

Baird Bros.' No. 1 Cooper, 330 ft. S and W, NE cor. SE Sec. 30-8-11	Comp. pumping 15 bbls., 2,532 ft.
Dyer et al's No. 1 McCollister, 330 ft. S and E, NW cor. SW NE Sec. 24-7-12	S.D. 1,100 ft.
M. J. Kissick's No. 1 Barr, 350 ft. S and W, NE cor. SW SE Sec. 6-4-11	Drlg. 430 ft.
Magnolia Pet. Co.'s No. 2 Gindratt, 330 ft. N, 330 ft. E, SW cor. SE Sec. 30-8-11	T.A. 2,485 ft.
Magnolia Pet. Co.'s No. 2 Peterson, 990 ft. S, 330 ft. E, NW cor. NE NE Sec. 10-7-11	W.O.S.R. 2,748 ft.
J. H. Reeve's No. 3 Sabine Lbr. Co., 330 ft. S, 280 ft. E, NW cor. SW NW Sec. 7-7-11	Used acid 2,616 ft.
Tex-La-Ark Oil Co.'s No. 1 Pickering Lbr. Co., Sec. 3-3-12	S.D. 450 ft.
A. H. Tarver's No. 2 Bauer and Barthold, Sec. 25-8-12	S.D.; W.O. 2,639 ft.
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Bridges Co., Inc.'s No. 1 Moore, CEL NW NW Sec. 5-9-12	S.D.; W.O. 2,130 ft.

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Alexander & Weaver's No. 1 Mayes, Sec. 25-6n-1e	Set 8¼-in. 2,414 ft.

RANKIN COUNTY

Benedum & Trees' No. 1 Southern Dev. Co., Sec. 35-3n-1e	Coring 5,281 ft.
Ferguson, Fuller & Metz' No. 1 Ammons, 350 ft. E and S, NW cor. NW NW Sec. 35-3n-3e	Partly rigged and S.D.
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East Texas (Border Counties)

HARRISON COUNTY

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PANOLA COUNTY

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Adams & Despot's No. 10 Adams, Thomas Cox Sur.	Drlg. 450 ft.
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A. M. Keicker et al's No. 1 Frost Lbr. Ind., M. S. Potts Sur.	S.D. 2,115 ft.
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SHELBY COUNTY

Bush Oil Int.'s No. 1 Windham, W. M. Blackburn Sur.	S.D.; high wtr. 3,366 ft.
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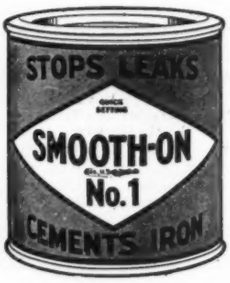

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